## Gross Product by Industry, 1995–97

By Sherlene K.S. Lum and Brian C. Moyer

This article presents new estimates of gross product, or gross product originating (GPO), by industry for 1997 and revised estimates for 1995–96; it also presents new and revised estimates of gross output and intermediate inputs by industry. The new and revised estimates incorporate the results of the annual revision of the national income and product accounts (NIPA'S)

released in July 1998 and newly available source data.<sup>2</sup> In addition, this article includes the tables of GPO prices and unit costs that were first introduced in March 1998 to provide insight into the sources of change in the aggregate price level by industry and to identify the sources of GPO price change among the cost components of GPO.<sup>3</sup>

#### Gross Product Originating: Definition and Relationship to Gross Domestic Product

Gross product, or gross product originating (GPO), by industry is the contribution of each private industry and government to the Nation's output, or gross domestic product (GDP). An industry's GPO, often referred to as its "value added," is equal to its gross output (sales or receipts and other operating income, commodity taxes, and inventory change) minus its intermediate inputs (consumption of goods and services purchased from other industries or imported).

For the national income and product accounts (NIPA'S), GDP is measured as the sum of expenditure components. Gross domestic income (GDI) measures output as the sum of the costs incurred and the incomes earned in the production of GDP. In concept, GDP and GDI should be the same; in practice, they differ because their components are estimated using largely independent and less-than-perfect source data. BEA views GDP as the more reliable measure of output because the source data underlying the estimates of expenditures are considered to be more accurate. The difference between GDP and GDI is called the "statistical discrepancy"; it is recorded in the NIPA'S as an "income" component that reconciles GDI with GDP.

Current-dollar GPO by industry is measured as the sum of distributions by industry of the components of GDI attributable to labor and property located in the United States. Consequently, the sum of the current-dollar GPO estimates also differs from current-dollar GDP by the statistical discrepancy. In presenting the GPO estimates,

the statistical discrepancy is included in the GPO of private industries because of BEA's view that most of the measurement problems with the components of GDI affect the GPO of private industries rather than the GPO of general government or government enterprises.

Real GDP in the NIPA's is also measured as the sum of the expenditure components. Real GPO estimates for most industries are derived using separate estimates of gross output and intermediate inputs.2 The sum of the real GPO estimates differs from real GDP by the real statistical discrepancy, which is shown as part of privateindustry GPO, and by the category entitled "not allocated by industry," which is the difference between real GDP and the sum of real GPO for the detailed industries and of the statistical discrepancy. The value of the category "not allocated by industry" reflects the lack of additivity of detailed real GPO estimates that results from the formula used to calculate real output and from differences in the source data (both current dollars and prices) used to estimate industry GPO and the expenditures measure of real GDP. As with the current-dollar measures, BEA views the source data used to estimate the components of real gdp to be more reliable. In addition, the amount of detailed expenditures data available to calculate real GDP is greater than that for the gross output and intermediate inputs available to calculate real GPO. For some industries, no source data are available to measure gross output, and the resulting real GPO estimates are prepared using less reliable methodologies.

<sup>1.</sup> For the previously published estimates of gross product by industry for 1995–96, see Sherlene K.S. Lum and Robert E. Yuskavage, "Gross Product by Industry, 1947–96," Survey of Current Business 77 (November 1997): 20–34.

For more information, see Eugene P. Seskin, "Annual Revision of the National Income and Product Accounts," Survey 78 (August 1998): 7–35.

<sup>3.</sup> See Robert E. Yuskavage, "Gross Product by Industry Price Measures, 1977–96," SURVEY 78 (March 1998): 17–25.

<sup>1.</sup> For additional information on the accuracy of the two measures, see the box "The Statistical Discrepancy" in Robert P. Parker and Eugene P. Seskin, "Annual Revision of the National Income and Product Accounts," Survey of Current Business 77 (August 1997): 19.

<sup>2.</sup> For information about the computation of the real GPO estimates, see the box "Computation of the Chain-Type Quantity Indexes for Double-Deflated Industries" in Robert E. Yuskavage, "Improved Estimates of Gross Product by Industry, 1959–94," Survey 76 (August 1996): 142.

This comprehensive presentation of these integrated estimates of GPO, gross output, intermediate inputs, and GPO prices and unit costs is the latest step in the continuing efforts by the Bureau of Economic Analysis (BEA) to make the industry accounts data more useful. Last November, BEA presented new GPO estimates for 1996, which represented a speedup in the availability of estimates for the most recent complete year, and BEA presented and discussed annual estimates of gross output and intermediate inputs by industry for the first time. Future improvement efforts will focus on the development of measures of gross output for the industries for which the doubledeflation method is not used to prepare the GPO estimates and on integrating the GPO estimates with the benchmark input-output accounts and with other BEA industry estimates.

This article is presented in five parts. The first part discusses the relative performance of industries for 1995–97 in terms of real growth rates, contributions to real gdd growth, industry shares of current-dollar gross domestic product (gdd), and the composition of current-dollar gdd. The second part describes the revisions to the gdd estimates, and the third part discusses gross output and intermediate inputs by industry. The fourth part describes gdd prices and unit costs, and the fifth part discusses the changes to the source data and estimation methods. The new and revised estimates for 1995–97 for detailed industries are presented in tables after the text.

# Industry Growth, Shares, and Composition

The relative performance of particular industries or industry groups can be assessed by comparing real GPO growth rates, contributions to real GDP growth, the shares of GDP across industries, and the composition of current-dollar GPO. Comparisons of the growth rates of real gross product indicate an industry's performance relative to other industries. Contributions to real GDP growth indicate the extent that each industry affected the growth of GDP. Changes in the share of current-dollar gdp that is accounted for by an industry's gross product indicate whether that industry's claim on the economy's resources is increasing or decreasing. Changes in the composition of an industry's current-dollar GPO indicate whether the labor and capital shares for that industry are changing.

#### Real growth rates

From 1992, the start of the current cyclical expansion, through 1997, the most recent year for which GDP estimates by industry are available, real GDP increased at an average annual rate of 3.1 percent; private industries increased 3.6 percent, and government increased 0.2 percent (table 1). The real gross product of all private industry groups increased; the increases ranged from 7.9 percent in durable goods manufacturing to 1.9 percent in nondurable goods manufactur-Manufacturing as a whole increased 5.2 Excluding manufacturing, the largest increases were in trade—5.6 percent in retail trade and 5.5 percent in wholesale trade—and the smallest increase was in finance, insurance, and real estate (FIRE), 2.3 percent.

In 1992–97, at the 66-industry level of detail, the changes in real gdp varied widely. Seventeen industries recorded average annual increases of 5 percent or more in real gross product. Three of these industries recorded especially large increases: Electronic and other electric equipment (21.5 percent) and industrial machinery and equipment (14.6 percent) in durable goods manufacturing and security and commodity brokers (19.5 percent) in FIRE.<sup>4</sup> Nine industries recorded

Table 1.—Percent Changes in Real Gross Domestic Product by Industry Group, 1993–97

[Percent change from preceding period]

	1993	1994	1995	1996	1997	Average annual rate of change, 1992–97
Gross domestic product	2.3	3.5	2.3	3.4	3.9	3.1
Private industries	2.7	4.5	2.3	3.8	4.5	3.6
Agriculture, forestry, and fishing	-9.0	16.4	-10.9	7.6	11.7	2.6
Mining	4.6	6.3	4.8	-4.2	6.7	3.6
Construction	2.0	6.6	1.8	5.6	2.2	3.6
Manufacturing Durable goods Nondurable goods	3.5 6.1 .4	8.4 10.4 6.0		5.8		5.2 7.9 1.9
Transportation and public utilities Transportation Communications Electric, gas, and sanitary services	4.4 4.3 6.6 2.5	6.6	.8	6.3 6.0	5.1	4.0 4.6 4.0 3.4
Wholesale trade	2.5	7.7	1.6	6.8	9.3	5.5
Retail trade	4.0	6.2	4.2	6.3	7.2	5.6
Finance, insurance, and real estate	2.3	1.9	.8	3.3	3.2	2.3
Services	1.9	2.7	3.9	3.4	3.7	3.1
Government	.3	.3	2	.1	.7	.2

<sup>4.</sup> Annual and average annual growth rates for detailed industries are computed from the chain-type indexes that are shown in table 12. Percent changes in quantity indexes and chained dollars at all levels are the same and chained dollars are calculated from the quantity indexes. Real GPO estimates in chained (1992) dollars for detailed industries and industry groups

decreases in real growth. The largest decreases were also in durable goods manufacturing: Instruments and related products, down 7.7 percent, and "other transportation equipment," down 4.9 percent. Real growth in instruments and related products decreased each year.

In 1995, real GDP slowed to a 2.3-percent increase from a 3.5-percent increase in 1994. The growth in private-industry real GPO slowed to a 2.3-percent increase from a 4.5-percent increase; all private industry groups except services contributed to the deceleration. Agriculture, forestry, and fishing declined 10.9 percent after increasing 16.4 percent. Services increased 3.9 percent after increasing 2.7 percent. Although manufacturing grew at a slower rate than in 1994, two of the fastest growing industry groups were durable goods manufacturing (8.3 percent) and nondurable goods manufacturing (4.4 percent).

By detailed industry, the fastest growing industries in 1995 were in manufacturing and services. In manufacturing, industrial machinery and equipment increased 23.8 percent; electronic and other electric equipment increased 22.6 percent; food and kindred products increased 18.1 percent, and petroleum and coal products increased 10.2 percent. In services, motion pictures grew 11.8 percent. Two industries decreased substantially: Farms in agriculture, forestry, and fishing, down 15.2 percent, and paper and allied products in manufacturing, down 14.8 percent.

In 1996, real GDP growth accelerated to 3.4 percent from 2.3 percent in 1995. The acceleration was mainly in agriculture, forestry, and fishing; construction; transportation and public utilities; wholesale trade; and retail trade. All industry groups except mining and nondurable goods manufacturing increased. Agriculture, forestry,

are shown in table 13. For information about the computation of the real GPO estimates, see the box "Computation of the Chain-Type Quantity Indexes for Double-Deflated Industries" in Robert E. Yuskavage, "Improved Estimates of Gross Product by Industry, 1959–94," Survey 76 (August 1996): 142.

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and fishing grew the fastest (7.6 percent), followed by wholesale trade (6.8 percent); mining declined 4.2 percent, and nondurable goods manufacturing declined 3.2 percent. The growth in agriculture, forestry, and fishing reflected large increases in the gross output and the gross product of farms. Transportation increased 6.3 percent after increasing 0.8 percent, and wholesale trade increased 6.8 percent after increasing 1.6 percent.

By detailed industry, the fastest growing industries in 1996 were in fire and in transportation and public utilities, and the slowest growing industries were in manufacturing. In fire, real gpo for security and commodity brokers increased 32.8 percent, and in transportation and public utilities, "pipelines, except natural gas" increased 29.0 percent. The two biggest declines in real gpo were in food and kindred products, down 16.0 percent, and in leather and leather products, down 12.9 percent.

In 1997, real GDP growth increased to 3.9 percent from 3.4 percent. The increase reflected increases in all industry groups. Agriculture, forestry, and fishing grew the fastest (11.7 percent), followed by wholesale trade (9.3 percent),

Table 2.—Contributions to Percent Change in Real Gross Domestic Product by Industry Group, 1993–97

Domestic Froduct by made	ou y	Oiot	ι <b>ρ</b> , ι	333	31	
	1993	1994	1995	1996	1997	Average annual rate, 1992–97
Percent change: Gross domestic product	2.3	3.5	2.3	3.4	3.9	3.1
Percentage points: Private industries	2.3	3.8	2.0	3.3	3.9	3.1
Agriculture, forestry, and fishing	2	.3	2	.1	.2	0
Mining	.1	.1	.1	1	.1	.1
Construction	.1	.2	.1	.2	.1	.1
Manufacturing Durable goods Nondurable goods	.6 .6 0	1.4 1.0 .5	1.2 .8 .3	.3 .6 –.2	1.0 .9 .1	.9 .8 .1
Transportation and public utilities Transportation Communications Electric, gas, and sanitary services	.4 .1 .2 .1	.5 .2 .1 .2	.1 0 .1 0	.5 .2 .2	.2 .2 .1 0	.3 .1 .1
Wholesale trade	.2	.5	.1	.5	.6	.4
Retail trade	.4	.5	.4	.6	.6	.5
Finance, insurance, and real estate	.4	.4	.1	.6	.6	.4
Services	.4	.5	.8	.7	.7	.6
Statistical discrepancy 1	.1	6	6	1	3	3
Government	0	0	0	0	.1	0
Not allocated by industry 2	0	4	.3	.1	1	1

Equals GDP measured as the sum of expenditures less gross domestic income.
 Equals GDP less the statistical discrepancy and the sum of GPO of the detailed industries.
 Note:—For information on the calculation of the contributions to percent change, see footnote in the text.

durable goods (9.1 percent), retail trade (7.2 percent), and mining (6.7 percent). Electric, gas, and sanitary services (0.5 percent) and nondurable goods manufacturing (1.9 percent) grew the slowest.

By detailed industry, the fastest growing industries in 1997 were in durable goods manufacturing: Electronic and other electric equipment, up 22.5 percent, and industrial machinery and equipment, up 17.5 percent. These two industries were also among the fastest growing industries in 1995 and in 1996.

Contributions to real GDP growth.— An industry's contribution to the growth of real GDP depends both on the industry's rate of growth and on the industry's relative size. (See the box "Using Chained-Dollar Estimates for Computing Contributions to Economic Growth: A Cautionary Note.") In 1992-97, durable goods manufacturing was the largest contributor, accounting for o.8 percentage point of the 3.1-percent growth in real GDP; services was the next largest, 0.6 percentage point (table 2).5 In 1995, durable goods manufacturing and services each contributed o.8 percentage point to the growth in

real GDP. In 1996, services contributed 0.7 percentage point, and durable goods, retail trade, and fire each contributed 0.6 percentage point. In 1997, durable goods manufacturing was again the largest contributor, 0.9 percentage point, and services was next, 0.7 percentage point.

#### Shares of current-dollar GDP

Shares in current dollars are a better indicator of an industry's relative size in the economy in any one period than shares in real dollars, because industry shares in real dollars—whether using weights from the period being measured (chained dollars) or weights from a single period (constant dollars)—depend on the choice of the base year and therefore are not good indicators of relative size in years other than the base year.

The share of GDP that is accounted for by private services-producing industries rose relative to that by goods-producing industries and by government. The share of private goods-producing industries increased from 24.0 percent in 1992 to 24.2 percent in 1997, and the share of private services-producing industries increased from 61.3 percent to 63.9 percent (table 3).6 The share accounted for by government fell from 14.0 percent

Table 3.—Gross Product by Industry Group in Current Dollars and As a Percentage of Gross Domestic Product, 1992-97

			Billions of	of dollars		Percent						
	1992	1993	1994	1995	1996	1997	1992	1993	1994	1995	1996	1997
Gross domestic product	6,244.4	6,558.1	6,947.0	7,269.6	7,661.6	8,110.9	100.0	100.0	100.0	100.0	100.0	100.0
Private industries	5,370.8	5,655.4	6,013.5	6,306.9	6,667.9	7,083.3	86.0	86.2	86.6	86.8	87.0	87.3
Agriculture, forestry, and fishing	112.4	106.1	119.2	109.5	130.4	131.7	1.8	1.6	1.7	1.5	1.7	1.6
Mining	92.2	94.6	94.9	98.7	113.8	120.5	1.5	1.4	1.4	1.4	1.5	1.5
Construction	229.7	242.4	268.7	286.4	311.9	328.8	3.7	3.7	3.9	3.9	4.1	4.1
Manufacturing	1,063.6 573.4 490.3	1,116.5 615.7 500.8	1,216.1 679.2 536.9	1,282.2 711.6 570.5	1,309.1 737.3 571.8	1,378.9 784.0 594.9	17.0 9.2 7.9	17.0 9.4 7.6	17.5 9.8 7.7	17.6 9.8 7.8	17.1 9.6 7.5	17.0 9.7 7.3
Transportation and public utilities	528.7 192.8 161.1 174.7	561.7 203.3 175.6 182.8	598.7 219.9 184.6 194.2	616.4 226.1 193.3 197.0	649.3 237.0 207.5 204.9	676.3 255.5 211.6 209.2	8.5 3.1 2.6 2.8	8.6 3.1 2.7 2.8	8.6 3.2 2.7 2.8	8.5 3.1 2.7 2.7	8.5 3.1 2.7 2.7	8.3 3.2 2.6 2.6
Wholesale trade	406.4	423.3	468.0	491.4	519.8	562.8	6.5	6.5	6.7	6.8	6.8	6.9
Retail trade	544.3	573.2	615.3	641.0	673.0	712.9	8.7	8.7	8.9	8.8	8.8	8.8
Finance, insurance, and real estate	1,147.9	1,218.1	1,267.6	1,362.3	1,448.6	1,570.3	18.4	18.6	18.2	18.7	18.9	19.4
Services	1,200.8	1,267.0	1,350.4	1,445.4	1,544.2	1,656.8	19.2	19.3	19.4	19.9	20.2	20.4
Statistical discrepancy <sup>1</sup>	44.8	52.6	14.6	-26.5	-32.2	-55.8	.7	.8	.2	4	4	7
Government	873.6	902.7	933.5	962.7	993.7	1,027.6	14.0	13.8	13.4	13.2	13.0	12.7
Addenda:  Private goods-producing industries <sup>2</sup> Private services-producing industries <sup>3</sup>	1,497.9 3,828.1	1,559.6 4,043.2	1,698.9 4,300.0	1,776.8 4,556.6	1,865.1 4,835.0	1,959.9 5,179.1	24.0 61.3	23.8 61.7	24.5 61.9	24.4 62.7	24.3 63.1	24.2 63.9

<sup>1.</sup> Equals GDP measured as the sum of expenditures less gross domestic income.

<sup>5.</sup> For a description of the calculation of these contributions, see "Note on Computing Alternative Chained Dollar Indexes and Contributions to Growth" in J. Steven Landefeld and Robert P. Parker, "BEA'S Chain Indexes, Time Series, and Measures of Long-Term Economic Growth," Survey 77 (May 1997): 63.

<sup>6.</sup> Private-goods producing industries consist of agriculture, forestry, and fishing; mining; construction; and manufacturing. Private-services producing industries consist of transportation and public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and services.

<sup>2.</sup> Consists of agriculture, forestry, and fishing; mining; construction; and manufacturing.

<sup>3.</sup> Consists of transportation and public utilities; wholesale trade; retail trade; finance, insurance, and real estate: and services.

to 12.7 percent; the fall was concentrated in Federal general government (table 10).<sup>7</sup>

The increase in the share of private servicesproducing industries was mostly accounted for by 'services" and by fire; the share of services rose 1.2 percentage points, and that of fire rose 1.0 percentage point. In fire, the shares of security and commodity brokers and of insurance carriers both increased 0.5 percentage point. The share of wholesale trade increased from 6.5 percent to 6.9 percent. Manufacturing's share of GDP increased from 17.0 percent in 1992 to 17.6 percent in 1995, primarily reflecting durable goods, and then fell back to 17.0 percent by 1997, primarily reflecting nondurable goods.

#### Composition of GPO

Current-dollar GPO is measured as the sum of costs incurred and incomes earned in production in each industry. It is equal to gross domestic income, whose components can be grouped into categories that approximate shares of labor and of capital. Differences over time and among industry groups in shares of labor and capital can be observed using these approximations. The labor share of production can be approximated using compensation of employees, which

### Using Chained-Dollar Estimates for Computing Contributions to Economic Growth: A Cautionary Note

The Bureau of Economic Analysis (BEA) measures real output and prices using chain-type annual-weighted indexes computed with a Fisher formula. These measures, which were introduced in the most recent comprehensive revisions of the national income and product accounts and of the gross product originating by industry (GPO) estimates, allow for the effects of changes over time in relative prices and quantities. By eliminating the substitution bias inherent in the previously featured fixed-weighted measures of real output and prices, these new indexes provide significantly more

Exhibit 1.—Alternative Measures of Contributions to Real GDP Growth Based on Chained Dollars, 1977-82

[Percent]

Line		Contribution to change in GDP, 1992=100	Contribution to change in GDP, 1977=100	Percent- age points differ- ence
1	Gross domestic product	100.0	100.0	0
2	Agriculture, forestry, and fishing	4.2	7.3	-3.1
3	Mining	-1.0	-1.4	.4
4	Construction	-11.9	-11.0	9
5 6 7	Manufacturing Durable goods Nondurable goods	4.0 -2.1 7.1		9 .7 6
8 9 10 11	Transportation and public utilities	9.6 .1 10.3 –1.9		8 1 -3.3 3
12	Wholesale trade	13.2	19.7	-6.5
13	Retail trade	6.8	7.5	7
14	Finance, insurance, and real estate	38.8	31.4	7.4
15	Services	36.5	27.6	8.9
16	Government	10.3	8.9	1.4
17	Residual <sup>1</sup>	-10.4	-7.1	-3.3

<sup>1.</sup> The residual line is the difference between the first line and the sum of the most detailed lines.

NOTE.—Contributions to change are calculated by dividing the change in chained dollars for 1977–82 for each industry group by the change in chained dollars for GDP. This calculation is performed using chained (1992) dollars and chained (1977) dollars. This procedure differs from that used for the calculations of contributions to growth shown in NIPA table 8.2.

accurate measures of growth in real GDP and other major economic aggregates.1

As a convenience for data users, BEA also prepares dollardenominated real output series that are consistent with the chaintype indexes and that retain some of the computational advantages of constant-dollar series. The real chained (1992) dollar estimates for a GDP expenditure component or for a GPO industry are derived as the product of the chain-type quantity index (divided by 100) and the corresponding 1992 current-dollar value. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive.

For many analytical purposes, these chained-dollar estimates are appropriate and informative. Growth rates and percent changes based on chained dollars are always equivalent to those derived from the quantity indexes and can be used confidently over any time period. Contributions to change computed from published chained dollars are usually appropriate for periods close to the reference year, especially for components or industries whose prices have not changed substantially relative to GDP prices.

However, if relative prices for individual GDP expenditure components or for GPO industries have changed substantially, then calculations of contributions to economic growth based on published chained-dollar estimates may be misleading and inappropriate even for short periods close to the reference year. Even for highly aggregated expenditure categories or for industry groups, the calculations will usually be misleading over long periods, because relative prices are likely to change substantially.2

The accompanying exhibit shows the contributions of industry groups to the change in real GDP for 1977–82 based on chained (1992) dollars and on chained (1977) dollars. (The period 1977-82 was chosen for illustrative purposes because it is relatively far from the

<sup>7.</sup> In addition, the statistical discrepancy as a share of current-dollar GDP fell from 0.7 percent to −0.7 percent.

<sup>1.</sup> For more information, see J. Steven Landefeld and Robert P. Parker, "BEA'S Chain Indexes, Time Series, and Measures of Long-Term Economic Growth," Survey OF CURRENT BUSINESS 77 (May 1997): 58-68.

<sup>2.</sup> Comparisons among the chained (1992) dollar estimates of components or industries may be particularly misleading for periods before 1982. For example, during the World War II era, the share of GDP accounted for by government consumption expenditures and gross investment increased substantially, and prices throughout the economy were tightly controlled and very different from postwar levels. These changes in the structure of the economy, while relatively short lived, seriously affect computations of contributions to GDP growth in this period.

consists of wage and salary accruals, employer contributions for social insurance, and other labor income. The capital share of production (property-type income) can be approximated using all the remaining components of GPO except indirect business tax and nontax liability, which is treated as a separate cost component because it is part of the pre-tax return to capital that accrues to government rather than to business. In levels, these cost components increased for all industry

groups, so the changes in shares reflect differences in growth rates among the cost components.

For the total economy, the share of GDP accounted for by compensation of employees decreased slightly, from 58.4 percent in 1992 to 57.8 percent in 1997, while the share of property-type income increased from 32.8 percent to 35.2 percent (table 11). The share of indirect business tax and nontax liability decreased from 8.1 percent to 7.7 percent. In 1992–97, the labor and capital shares of GPO and the change in these shares varied among industry groups. For manufacturing, the labor share of GPO declined 4.4 percentage points despite increases in full-time equivalent employment and compensation per

# Using Chained-Dollar Estimates for Computing Contributions to Economic Growth: A Cautionary Note, Continued

reference year for published chained (1992) dollars.) Contributions to the change in real GDP were computed by dividing the change in chained dollars for an industry group by the change in chained dollars for GDP for the period. For many industry groups, the contributions are very similar using either 1977 or 1992 as the reference year, but for some industry groups, they differ substantially. As measured using chained (1992) dollars, services account for 37 percent of real GDP growth in 1977-82; as measured using chained (1977) dollarsa more appropriate (contemporaneous) reference period—services account for 28 percent. Similarly, the contribution of finance, insurance, and real estate (FIRE) is 39 percent based on chained (1992) dollars and 31 percent based on chained (1977) dollars. These differences arise because the GPO prices of services and of FIRE increased substantially relative to GDP prices from 1977 to 1992, whereas the GPO prices of most other industry groups declined relative to GDP prices. Thus, using the relative prices of 1992 for services and FIRE overstates their contribution to real economic growth in the earlier period.

The contributions to real GDP growth computed from chaineddollar estimates can be misleading not only for industry groups over long time periods, but also for detailed industries during periods of rapid changes in relative prices, even for periods that are relatively close to the chained-dollar reference year. To illustrate, the contributions of detailed industries to the change in GDP for 1997 were computed using the published chained (1992) dollars and using an alternative measure based on chained (1996) dollars. For most industries, the alternative measure yields the same or similar estimates of contributions to real GDP growth. However, for two industries for which GPO prices have increased much slower relative to GDP prices-industrial machinery and equipment (which includes computers) and electronic and other electric equipment (which includes semiconductors)—the contributions are substantially overstated using chained (1992) dollars: For industrial machinery and equipment, 11.6 percent, compared with 8.6 percent using chained (1996) dollars; and for electronic and other electric equipment, 17.5 percent, compared with 10.6 percent. Conversely, the contribution of the insurance carriers industry is somewhat understated—2.1 percent, compared with 2.7 percent—because the GPO price for this industry increased much faster than GDP prices.

For analyses of contributions to the change in real gdp, bea strongly recommends the use of the published contribution-to-

growth tables. Table 2 in the monthly GDP news release and NIPA table 8.2, which is on page D–25 of this issue, provide accurate measures of the contributions of the major GDP expenditure components to the percent change in real GDP for all periods; these tables use exact formulas for attributing growth to the components of GDP. Table 2 in this article provides estimates of annual contributions to the percent change in real GDP for industry groups based on approximations to the exact formula. The estimates for each year are based on the prior year's current-dollar estimates, and the average annual contribution for 1992–97 is computed as the average of the annual percentage-point contributions.

For some analytical purposes, it may be desirable to compute contributions to growth for more than a single period or for aggregates other than GDP. Users can prepare close approximations of these contributions using chain-type annual-weighted indexes. In effect, users compute a chained-dollar series for a particular period using the percent changes in the chain-type annual-weighted indexes to compute chained-dollar series indexed to the current dollars of the reference period appropriate for the analysis (see footnote 1 for a reference to additional information on these calculations). Another alternative is to use the same procedure as that used for table 2 in this article. In table 2, the contributions of industry groups to real GDP growth for 1993 were computed by (1) extrapolating the 1992 estimates of current-dollar gdp and gpo by the percent changes in the corresponding GDP and GPO chain-type quantity indexes from 1992 to 1993, (2) calculating each industry group's percentage contribution to the change in real GDP for 1993 based on chained dollars, and (3) multiplying these percentages by the percent change in real GDP for 1993. The contributions for 1994 were computed by extrapolating the 1993 current-dollar estimates by the percent changes in the chain-type quantity indexes from 1993 to 1994. These estimates were then used to calculate the contribution of each industry group to the change in real GDP for 1994 based on chained (1993) dollars. As with the calculations for contributions to real GDP growth for 1993, these percentage contributions to growth for 1994 were then multiplied by the percent change in real GDP for 1994. This procedure was repeated to calculate each industry group's percentage-point contribution to real GDP growth for each year (1993, 1994, 1995, 1996, and 1997). The average annual contribution for 1992-97 was then computed for each industry group as the simple average of each year's percentage-point contribution.

<sup>8.</sup> Property-type income is the sum of corporate profits, proprietors' income, rental income of persons, net interest, capital consumption allowances, business transfer payments, and the current surplus of government enterprises less subsidies. Proprietors' income is included in property-type income as a capital share of production; however, an unknown portion of proprietors' income represents a labor share of production.

full-time equivalent employee. Despite a long-term decline in labor's share of manufacturing GPO, labor's share increased 0.2 percentage point in 1997, the first increase since 1992. In 1992–97, the capital share of manufacturing GPO increased 5.0 percentage points. For durable goods manufacturing, the labor share dropped 7.0 percentage points, and the capital share increased by 7.3 percentage points.

The shifts in the labor and capital shares in mining, in agriculture, forestry, and fishing, and in wholesale trade were relatively large. In mining, the labor share decreased from 35.2 percent in 1992 to 29.9 percent in 1997, and the capital share rose from 53.2 percent to 61.1 percent. In agriculture, forestry, and fishing, the labor share increased from 27.3 percent to 32.0 percent, and the capital share decreased. In wholesale trade, the labor share decreased from 58.8 percent to 55.2 percent, and the capital share increased from 18.5 percent to 23.2 percent.

#### Revisions to the GPO Estimates

The revisions to current-dollar GPO and to real GPO growth rates by industry group for 1995 and 1996 are presented in table 4. The estimates reflect the revisions to the annual NIPA estimates and the incorporation of new and revised source data for gross output and prices. The revisions to the 1995 estimates were smaller than those to the 1996 estimates: GDP was revised up \$4.2 billion for 1995 and \$25.6 billion for 1996. The revisions to the 1996 current-dollar estimates reduced manufacturing's share of GDP by 0.4 percentage point; this reduction was offset by an increase in the share accounted for by the statistical discrepancy.10 The real GDP growth rate was revised up 0.3 percentage point for 1995 and up 0.6 percentage point for 1996. The revisions to real GPO growth rates for some industry groups were substantial, but the effects of these revisions on industry contributions to real GDP growth were generally small.

### Current-dollar estimates

The revisions to current-dollar GPO largely reflect the annual NIPA revisions to the components of

Table 4.—Revisions to Gross Domestic Product by Industry Group, 1995–96

		Cur	rent-dollar	gross pro	duct		Real gross product							
			Billions	of dollars				Percent of	change from	m precedir	ng period			
		1995			1996			1995			1996			
	Pre- viously pub- lished	Revised	Revision	Pre- viously pub- lished	Revised	Revision	Pre- viously pub- lished	Revised	Revision	Pre- viously pub- lished	Revised	Revision		
Gross domestic product	7,265.4	7,269.6	4.2	7,636.0	7,661.6	25.6	2.0	2.3	0.3	2.8	3.4	0.6		
Private industries	6,301.3	6,306.9	5.6	6,639.8	6,667.9	28.1	2.7	2.3	4	2.9	3.8	.9		
Agriculture, forestry, and fishing	111.0	109.5	-1.5	129.8	130.4	.6	-6.5	-10.9	-4.4	.3	7.6	7.3		
Mining	99.8	98.7	-1.1	113.6	113.8	.2	5.7	4.8	9	-5.9	-4.2	1.7		
Construction	286.4	286.4	0	306.1	311.9	5.8	1.8	1.8	0	4.0	5.6	1.6		
Manufacturing Durable goods Nondurable goods	1,286.3 716.8 569.5	1,282.2 711.6 570.5	-4.1 -5.2 1.0	1,332.1 749.0 583.1	1,309.1 737.3 571.8	-23.0 -11.7 -11.3	6.7 8.9 4.1	6.6 8.3 4.4	1 6 .3	3.9 7.4 4	1.8 5.8 -3.2	-2.1 -1.6 -2.8		
Transportation and public utilities  Transportation  Communications  Electric, gas, and sanitary services	622.4 228.7 191.6 202.0	616.4 226.1 193.3 197.0	-6.0 -2.6 1.7 -5.0	645.3 235.1 200.3 210.0	649.3 237.0 207.5 204.9	4.0 1.9 7.2 –5.1	1.7 .8 .9 3.4	1.4 .8 2.1 1.3	3 0 1.2 -2.1	2.5 2.2 1.8 3.7	5.8 6.3 6.0 5.0	3.3 4.1 4.2 1.3		
Wholesale trade	484.4	491.4	7.0	516.8	519.8	3.0	2.0	1.6	4	7.8	6.8	-1.0		
Retail trade	637.6	641.0	3.4	667.9	673.0	5.1	3.5	4.2	.7	4.2	6.3	2.1		
Finance, insurance, and real estate	1,361.3	1,362.3	1.0	1,448.5	1,448.6	.1	2.9	.8	-2.1	2.2	3.3	1.1		
Services	1,440.3	1,445.4	5.1	1,539.5	1,544.2	4.7	3.4	3.9	.5	3.4	3.4	0		
Statistical discrepancy <sup>1</sup>	-28.2	-26.5	1.7	-59.9	-32.2	27.7								
Government	964.1	962.7	-1.4	996.3	993.7	-2.6	1	2	1	4	.1	.5		

<sup>1.</sup> Equals GDP measured as the sum of expenditures less gross domestic income

<sup>9.</sup> For some analytical purposes, the labor and capital shares of gross output are more appropriate than the labor and capital shares of GPO. For most industries, particularly for manufacturing, the labor and capital shares of GPO are larger than the labor and capital shares of gross output, because gross output also includes intermediate inputs. For example, labor's share of manufacturing gross output was 22.6 percent in 1997, whereas labor's share of manufacturing GPO was 63.6 percent.

<sup>10.</sup> The share increased because the value of the statistical discrepancy was revised from -\$59.9 billion to -\$32.2 billion.

gross domestic income and to the industry distributions of these components. Several of the income components with larger revisions mostly offset one another. The revisions to gross domestic income for 1995 include upward revisions to corporate profits before tax and corporate capital consumption allowances and downward revisions to supplements and net interest. The revisions to gross domestic income for 1996 include downward revisions of \$24.6 billion to supplements and of \$16.8 billion to net interest and smaller upward revisions to most of the other components.

For 1995, by industry group, the largest upward revisions were to wholesale trade, \$7.0 billion, and services, \$5.1 billion. The upward revision to wholesale trade mainly reflected an upward revision to indirect business tax and nontax liability, and the upward revision to services mainly reflected revisions to corporate capital consumption allowances. The largest downward revisions were to manufacturing, \$4.1 billion, and to electric, gas, and sanitary services, \$5.0 billion. The downward revision to manufacturing reflected a \$5.2 billion revision to durable goods, mainly to net interest and supplements; the revision to net interest was concentrated in electronic and other electric equipment and in motor vehicles and equipment, and the revision to supplements was concentrated in motor vehicles and equipment. The downward revision to electric, gas, and sanitary services reflected revisions to noncorporate and corporate capital consumption allowances.

For 1996, the largest upward revisions were to communications, \$7.2 billion, and to construction, \$5.8 billion. The revision to communications reflected upward revisions to net interest and to indirect business tax and nontax liability. The revision to construction reflected upward revisions to corporate profits before tax and to corporate capital consumption allowances.

The largest downward revision for 1996 was to manufacturing, down \$23.0 billion, reflecting large downward revisions to supplements and to corporate profits before tax and smaller downward revisions to noncorporate income and to business transfer payments. These revisions were partly offset by small upward revisions to noncorporate and corporate capital consumption allowances. Durable goods manufacturing was revised down \$11.7 billion, reflecting the large downward revision to supplements and smaller downward revisions to net interest, noncorporate income, and corporate profits before tax; these revisions were partly offset by upward revisions to

corporate and noncorporate capital consumption allowances. Nondurable goods manufacturing was revised down \$11.3 billion, mainly reflecting downward revisions to corporate profits before tax, noncorporate income, and business transfer payments.

In durable goods manufacturing, fabricated metal products were revised down \$5.1 billion, reflecting a downward revision to corporate profits before tax, and instruments and related products were revised up \$3.2 billion, reflecting an upward revision to corporate profits before tax. In nondurable goods manufacturing, food and kindred products were revised down \$6.6 billion and chemicals and allied products were revised down \$2.0 billion; both revisions reflected large downward revisions to corporate profits before tax.

#### Real growth rates

The revisions to real GPO growth rates for 1995 and 1996 primarily reflected the revisions to current-dollar GPO, and they also reflected the incorporation of new and revised source data for gross output and prices. By industry, the revisions to real GPO growth rates in both years were generally offsetting. However, the growth rate for

#### **Data Availability**

This article presents the summary estimates of gross product by industry. These estimates and more detailed estimates for 1947–97 are available on BEA'S Web site; go to <www.bea.doc.gov>, and click on Industry and Wealth data. They are also available online to subscribers to STAT-USA'S Economic Bulletin Board and Internet services (call 202–482–1986, or go to <www.stat-usa.gov>).

In addition, the estimates will be available on diskettes for \$20.00 each from BEA in late November.

- Gross Product by Industry, 1947–97—product number NDN–0219.
- Gross Output by Detailed Industry, 1977–97—product number NDN-0220.
- Manufacturing Industry Shipments, 1977–97 product number NDN-0221.
- Manufacturing Product Shipments, 1977–96 product number NDN-0222.

To order using Visa or MasterCard, call the BEA Order Desk at 1-800-704-0415 (outside the United States, call 202-606-9666). To order by mail, send a check made payable to "Bureau of Economic Analysis, BE-53," to BEA Order Desk, BE-53, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230.

Table 5.—Percent Changes in Chain-Type Quantity Indexes by Industry Group, 1993-97

[Percent change from preceding period]

	1994	1995	1996	1997	annual rate of change, 1992– 97
2.3	3.5	2.3	3.4	3.9	3.1
2.7	4.5	2.3	3.8	4.5	3.6
-2.4	8.3	-3.0	4.0	6.5	2.6
4.0	1.2	4.8	1.0	2.0	2.6
-9.0	16.4	-10.9	7.6	11.7	2.6
.7	2.3	8	1.6	2.9	1.3
-4.3	-3.5	-9.3	11.8	-3.0	-1.9
4.6	6.3	4.8	-4.2	6.7	3.6
2.5	4.1	.6	4.8	3.7	3.1
3.1	1.3	8	3.8	5.6	2.6
2.0	6.6	1.8	5.6	2.2	3.6
3.5	5.7	5.0	3.4	6.8	4.9
3.5	4.2	4.1	4.4	7.3	4.7
3.5	8.4	6.6	1.8	5.9	5.2
5.7	8.3	7.6	6.5	9.6	7.5
5.4	7.1	7.2	6.9	9.9	7.3
6.1	10.4	8.3	5.8	9.1	7.9
1.3	2.8	2.0	0	3.6	1.9
1.7	1.2	.8	1.7	4.5	2.0
.4	6.0	4.4	–3.2	1.9	1.9
4.4	5.8	1.4	5.8	2.9	4.0
4.3	6.6	.8	6.3	5.1	4.6
5.0	4.5	6.3	9.7	8.5	6.8
1.9	7.6	13.9	15.9	17.7	11.3
6.6	3.0	2.1	6.0	2.6	4.0
.9	-1.3	1.1	0	2	.1
-1.9	-19.0	.6	-12.6	-2.3	-7.4
2.5	7.9	1.3	5.0	.5	3.4
4.8	6.0	5.9	3.1	4.4	4.8
10.1	2.3	15.2	-3.9	-5.7	3.3
2.5	7.7	1.6	6.8	9.3	5.5
4.3	5.1	3.0	4.3	4.2	4.2
4.8	3.2	.9	.9	9	1.8
4.0	6.2	4.2	6.3	7.2	5.6
2.3	1.9	.8	3.3	3.2	2.3
1.9	2.7	3.9	3.4	3.7	3.1
.3	.3	2	.1	.7	.2
2.7	5.5	3.8	3.6	6.3	4.4
3.1	3.5	3.4	4.4	6.6	4.2
2.0	8.5	4.2	2.4	5.7	4.5
2.9	3.9	2.4	4.4	4.5	3.6
	2.7  -2.4 4.0 -9.0  .7 -4.3 4.6  2.5 3.1 2.0  3.5 3.5 5.7 5.4 6.1  1.3 1.7 .4  4.4 4.3  5.0 9 -1.9 2.5  4.8 10.1 2.5  4.3 4.8 4.0  2.3 1.9 3  2.7 3.1 2.0	2.7	2.7	2.7         4.5         2.3         3.8           -2.4         8.3         -3.0         4.0           4.0         1.2         4.8         1.0           -9.0         16.4         -10.9         7.6           .7         2.3        8         1.6           -4.3         -3.5         -9.3         11.8           4.6         6.3         4.8         -4.2           2.5         4.1         .6         4.8           3.1         1.3        8         3.8           2.0         6.6         1.8         5.6           3.5         5.7         5.0         3.4           3.5         4.2         4.1         4.4           3.5         8.4         6.6         1.8           5.7         8.3         7.6         6.5           5.4         7.1         7.2         6.9           6.1         10.4         8.3         5.8           1.3         2.8         2.0         0           1.7         1.2         .8         1.7           .4         6.0         4.4         -3.2           4.4         5.8         1.4	2.7         4.5         2.3         3.8         4.5           -2.4         8.3         -3.0         4.0         6.5           4.0         1.2         4.8         1.0         2.0           -9.0         16.4         -10.9         7.6         11.7           .7         2.3        8         1.6         2.9           -4.3         -3.5         -9.3         11.8         -3.0           4.6         6.3         4.8         -4.2         6.7           2.5         4.1         .6         4.8         3.7           3.1         1.3        8         3.8         5.6           2.2         3.5         5.7         5.0         3.4         6.8           3.5         4.2         4.1         4.4         7.3         3.5         8.4         6.6         1.8         5.9           5.7         8.3         7.6         6.5         9.6         9.9         9.1         9.9         9.1         9.9         9.1         9.9         9.1         9.9         9.1         9.9         9.1         9.9         9.1         9.9         9.1         9.9         9.1         9.9         9.1         <

Gross product quantity index. Estimates for gross output and for intermediate inputs are not shown for this industry group, because data are not available. See footnote 11 in the text.
 Consists of agriculture, forestry, and fishing; mining; construction; and manufacturing.
 Consists of transportation and public utilities; wholesale trade; retail trade; finance, insur-

agriculture, forestry, and fishing GPO was revised down 4.4 percentage points for 1995 and up 7.3 percentage points for 1996; and the growth rate for transportation and public utilities GPO was revised up 3.3 percentage points for 1996. For agriculture, forestry, and fishing, the 1995 revision reflected downward revisions to both farms and agricultural services, forestry, and fishing, and the 1996 revision reflected an upward revision to farms. For transportation and public utilities, the 1996 upward revision reflected upward revisions of 4.1 percentage points to transportation and of 4.2 percentage points to communications. The revision to transportation reflected an upward revision to trucking and warehousing, transportation by air, and "pipelines, except natural gas," and the revision to communications reflected an upward revision to telephone and telegraph.

### **Gross Output and Intermediate Inputs** by Industry

This section presents new estimates of gross output and intermediate inputs by industry for 1997 and revised estimates for 1995-96. First, it presents current-dollar estimates of gross output and intermediate inputs and their relationship to current-dollar GPO. Second, it presents chaintype quantity indexes for gross output and intermediate inputs and discusses how these indexes are related to the GPO quantity indexes.

The estimates of gross output and intermediate inputs by industry, which are shown in tables 14-16, are prepared for those industries for which the double-deflation method is used to compute real GPO.11 Gross output by industry measures an industry's total output (sales, receipts, and other operating income). Intermediate inputs by industry measures an industry's total use of secondary factors of production (the energy, raw materials, semifinished goods, and services that are purchased from other industries or imported).

Current-dollar GPO by industry is the difference between an industry's current-dollar gross output and its current-dollar intermediate inputs. It represents the return to an industry's primary factors of production (labor and capital), as measured by its compensation of employees, indirect business tax and nontax liability, and property-type income. Because GPO excludes intermediate inputs,

ance, and real estate; and services

<sup>11.</sup> For other industries, the source data are not adequate for preparing gross output estimates. For more information on the double-deflation method, see Yuskavage, "Improved Estimates," 142-145.

it avoids double-counting in measuring industry output.

Real growth in an industry's gross output and intermediate inputs is measured using a chaintype quantity index. Quantity indexes for gross output and intermediate inputs are computed from detailed data on sales, purchases, and prices using a Fisher chain-type quantity-index-number formula. (Percent changes in the indexes and in the chain-type quantity index for GPO are presented by industry group in table 5.) Because industry gross output is produced using both primary and secondary factors of production, the percent change in an industry's GPO quantity index depends positively on the percent change in its gross output quantity index and negatively on the percent change in its intermediate inputs quantity index. The weights of these gross output and intermediate inputs growth rates are determined by the relative levels of an industry's current-dollar gross output and intermediate inputs.12 For example, the 1992-97 average annual growth rate for telephone and telegraph GPO, 4.4 percent, lags the relatively strong growth in this industry's gross output quantity index, 8.0 percent, because its intermediate inputs quantity index increased 14.5 percent, reflecting falling prices for intermediate inputs. Similarly, the average annual decline of 7.7 percent for instruments and related products GPO results from a 3.0-percent increase in this industry's gross output quantity index that was more than offset by a 9.8-percent increase in its intermediate inputs quantity index, partly reflecting falling prices for semiconductor inputs.

#### **GPO Prices and Unit Costs**

This section presents new estimates of gpo prices and unit costs by industry for 1997 and revised estimates for 1995-96. First, it presents GPO price indexes, including a discussion of contributions to GPO price change and a discussion of the relationship among GPO, gross output, and intermediate inputs price indexes. Second, it defines and presents estimates of unit costs by industry.

#### GPO prices

The GPO price index for an industry represents the implicit price of its primary factors of production (labor and capital). For most industries and industry groups, the GPO price index is

computed using a Fisher chain-type price-indexnumber formula. For some industries, the index is an implicit price deflator because of data limitations. The GPO price index estimates are presented in table 12, and the percent changes by industry group, in table 6.

Table 6.—Percent Changes in Chain-Type Price Indexes by Industry Group, 1993-97

[Percent change from preceding period]

Įi eicent change no	iii piec	cuirig	penouj			
	1993	1994	1995	1996	1997	Average annual rate of change, 1992–97
Gross domestic product	2.6	2.4	2.3	1.9	1.9	2.2
Private industries 1	2.5	1.8	2.5	1.9	1.7	2.1
Agriculture, forestry, and fishing: Gross output Intermediate inputs Gross product	2.6	6	2.0	8.3	-3.6	1.7
	1.9	2.2	1.0	6.2	2.2	2.7
	3.7	-3.5	3.1	10.7	-9.6	.6
Mining: Gross output Intermediate inputs Gross product	5	-3.9	.3	16.4	2	2.2
	1.3	-1.2	1.8	10.4	.7	2.5
	-1.9	-5.7	–.7	20.2	7	1.9
Construction: Gross output Intermediate inputs Gross product	3.2	3.5	4.0	2.5	3.2	3.3
	3.0	3.0	3.2	1.6	3.1	2.8
	3.5	4.0	4.7	3.1	3.2	3.7
Manufacturing: Gross output Intermediate inputs Gross product	1.0	1.2	2.3	2	8	.7
	.8	1.7	4.2	5	-1.0	1.0
	1.4	.5	–1.1	.3	5	.1
Durable goods: Gross output Intermediate inputs Gross product	1.1	1.3	.1	-2.4	-1.6	3
	1.1	2.1	2.2	-2.5	-1.1	.3
	1.2	0	–3.3	-2.1	-2.5	-1.3
Nondurable goods: Gross output Intermediate inputs Gross product	.9	1.2	4.8	2.5	.1	1.9
	.5	1.2	6.5	1.9	9	1.8
	1.7	1.1	1.8	3.5	2.1	2.0
Transportation and public utilities <sup>1</sup> Transportation <sup>1</sup> Communications:	1.8	.7	1.6	4	1.3	1.0
	1.1	1.5	2.0	-1.3	2.5	1.1
Gross output	1.3	.6	2.2	-1.1	-2.0	.2
	5	-2.2	2.2	-4.8	-3.0	–1.7
	2.2	2.2	2.5	1.3	6	1.5
Gross output	2.6	7	7	1.4	1.7	.9
	3.7	1.0	-2.9	8.3	1.9	2.3
	2.1	-1.5	.2	–1.0	1.6	.3
Wholesale trade: Gross output Intermediate inputs Gross product	1.8	2.7	3.4	.1	1	1.6
	2.3	2.6	3.6	2.2	1.9	2.5
	1.6	2.7	3.3	9	-1.0	1.1
Retail trade: Gross output Intermediate inputs Gross product	1.5	1.6	1.1	.1	.1	.9
	2.1	2.5	2.9	2.5	2.5	2.5
	1.2	1.1	0	–1.3	–1.1	0
Finance, insurance, and real estate 1	3.7	2.1	6.6	2.9	5.0	4.1
Services <sup>1</sup>	3.6	3.8	3.0	3.4	3.5	3.4
Government 1	3.1	3.1	3.3	3.1	2.7	3.1
Addenda:  Private goods-producing industries <sup>2</sup> : Gross output Intermediate inputs Gross product Private services-producing industries <sup>1</sup> <sup>3</sup>	1.5 1.2 2.1 2.6	1.2 1.8 .4 2.4	2.4 3.9 .3	1.2 .3 2.5	5 5 6	1.1 1.3 .9 2.5
1 Cross product price index. Estimates for	2.0	2.4	3.5	1.0	2.5	2.5

<sup>12.</sup> For the Fisher chain-type quantity index, these weights change each period.

Gross product price index. Estimates for gross output and for intermediate inputs are not shown for this industry group, because data are not available. See footnote 11 in the text.
 Consists of agriculture, forestry, and fishing; mining; construction; and manufacturing.
 Consists of transportation and public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and services.

For those industries for which the GPO price index is computed using a Fisher chain-type price-index-number formula, an industry's price index can be used in combination with its quantity index to separate changes in current-dollar GPO into price changes and quantity changes. For example, the 1992-97 average annual growth of 5.3 percent in current-dollar manufacturing GPO can be viewed as the product of a 0.1-percent growth in the manufacturing GPO price index (table 6) and a 5.2-percent growth in the manufacturing GPO quantity index (table 5)—that is,  $1.053 = 1.001 \times 1.052$ .

The chain-type price index for gross domestic product (GDP) increased at an average annual rate of 2.2 percent in 1992–97; private industries increased 2.1 percent, and government increased 3.1 percent (table 6). Among the private industry groups, the GPO price index for durable goods manufacturing declined 1.3 percent. The increases in the GPO price indexes for all industry groups except manufacturing and retail trade ranged from 0.3 percent for electric, gas, and sanitary services to 4.1 percent for FIRE.

The average annual 1992–97 GPO price change for private services-producing industries (2.5 percent) exceeded the GDP price change, and the GPO price change for private goods-producing industries (0.9 percent) was less than the GDP price change. The slower growth in the index for private goods-producing industries than in the index for private services-producing industries continues a trend that began in 1982. Exceptions to this trend were in 1989 and 1996.

In 1997, the GPO price index for private industries increased 1.7 percent, slightly less than the 1.9-percent increase in the GDP price index. The price index for manufacturing declined, as a decrease in durable goods prices was partly offset by an increase in nondurable goods prices. The price indexes for three other industry groups that are involved in the distribution of goods to customers increased less than the GDP price index or decreased: Electric, gas, and sanitary services (1.6 percent), wholesale trade (-1.0 percent), and retail trade (-1.1 percent). FIRE (5.0 percent) and services (3.5 percent) were among the industry groups for which the GPO price index increased more than the GDP price index.<sup>13</sup>

Contributions to change.—GPO prices can be used to assess an industry's contribution to the change in GDP prices. This contribution depends on

the industry's size relative to GDP and on the growth rate of its GPO price index.<sup>14</sup> In 1992-97, the largest contributors to the change in the GDP price index were FIRE (0.8 percentage point) and services (0.7 percentage point), both of which were large and rapidly growing industry groups (table 7). Government contributed 0.4 percentage point.<sup>15</sup> Manufacturing prices were unchanged, so their contribution to the GDP price change was o.o percentage point. Durable goods manufacturing contributed -0.1 percentage point; since 1995, the contribution of durable goods manufacturing to GDP price change has been negative, partly reflecting the rapid decline in prices for computers, digital telephone switching equipment, and semiconductors.

Table 7.—Contributions to Percent Change in the Chain-Type Price Index for Real Gross Domestic Product by Industry Group, 1993–97

	1993	1994	1995	1996	1997	Average annual rate, 1992–97
Percent change: Gross domestic product	2.6	2.4	2.3	1.9	1.9	2.2
Percentage points: Private industries	2.2	1.5	2.2	1.6	1.4	1.8
Agriculture, forestry, and fishing	.1	1	.1	.2	2	0
Mining	0	1	0	.3	0	0
Construction	.1	.1	.2	.1	.1	.1
Manufacturing Durable goods Nondurable goods	.2 .1 .1	.1 0 .1	2 3 .1	.1 2 .3	1 2 .2	0 1 .2
Transportation and public utilities Transportation	.1 0 .1	.1 0 .1	.1 .1 .1	0 0 0	.1 .1 0	.1 0 0
services	.1	0	0	0	0	0
Wholesale trade	.1	.2	.2	1	1	.1
Retail trade	.1	.1	0	1	1	0
Finance, insurance, and real estate	.7	.4	1.2	.6	1.0	.8
Services	.7	.7	.6	.7	.7	.7
Statistical discrepancy 1	0	0	0	0	0	0
Government	.4	.4	.4	.4	.3	.4
Not allocated by industry 2	0	.4	4	2	.1	1

Equals GDP measured as the sum of expenditures less gross domestic income.
 Equals GDP less the statistical discrepancy and the sum of GPO of the detailed industries.
 NOTE.—For information on the calculation of the contributions to percent change, see footnote.

14 in the text

 $_{13}$ . The price indexes for  $_{\rm FIRE}$  and services are implicit price deflators because of data limitations.

<sup>14.</sup> For a description of the calculation of these contributions, see the reference in footnote 5. The procedure described in the reference was modified to replace the chain-type quantity index with the chain-type price index.

<sup>15.</sup> The GPO price index for government is an implicit price deflator computed as current-dollar GPO divided by real (chained-dollar) GPO. For general government, which includes most of government, current-dollar GPO consists of compensation of employees and the consumption of fixed capital, which measures the services of general government fixed assets. Real consumption of fixed capital is estimated by direct deflation using price indexes from the NIPA's. Real compensation of employees is estimated by extrapolating base-year current-dollar values by an indicator of labor input.

Gross output prices and intermediate inputs prices. —Price indexes for gross output and intermediate inputs, which are presented in tables 15 and 16, are computed from detailed data on sales, purchases, and prices using a Fisher chain-type price-index-number formula. Like the relationship among percent changes in the chain-type quantity indexes for GPO, gross output, and intermediate inputs, the percent change in an industry's GPO price index depends positively on the percent change in its gross output price index and negatively on the percent change in its The weights intermediate inputs price index. of these gross output and intermediate inputs growth rates are determined by the relative levels of an industry's current-dollar gross output and intermediate inputs.16 For example, the 1992-97 average annual decline of 4.0 percent in the GPO price index for "pipelines, except natural gas" is attributable to a 1.4-percent decline in this industry's gross output price index and a 2.5-percent increase in its intermediate inputs price index. Similarly, the average annual growth of 9.0 percent in the GPO price index for instruments and related products is attributable to a 0.9-percent increase in this industry's gross output price index and a 3.3-percent decline in its intermediate inputs price index, partly reflecting falling prices for semiconductor inputs.

#### Unit costs

The GPO chain-type price index for an industry represents the implicit price of its primary factors of production; therefore, an industry's GPO price index can be used in combination with its current-dollar GPO components to assess each component's contribution to total industry labor and capital costs.<sup>17</sup>

The GPO measures of unit costs are computed by dividing current-dollar GPO and its components by real (chained-dollar) GPO.<sup>18</sup> The resulting quotients are the GPO chain-type price index and the part of the price index that is associated with each component. GPO unit-cost measures by private industry group are presented in table 8.<sup>19</sup> When the percent change in the unit cost for a component is greater than the percent

change in the GPO price index, the relative importance of that component in the industry cost structure has increased. Percent changes in unit costs by private industry group are presented in table 9.

The cost per unit of GPO for private industries increased 2.1 percent in 1992–97. Compensation

Table 8.—Current-Dollar Cost Per Unit of Real Gross Product Originating by Private Industry Group, 1992–97

[Dollars]

	1992	1993	1994	1995	1996	1997
Total	1.000	1.025	1.043	1.070	1.090	1.108
Compensation of employees Indirect business tax and	.543	.556	.559	.572	.579	.592
nontax liability	.095	.097	.099	.098	.099	.097
Property-type income	.362	.371	.386	.400	.412	.419
Agriculture, forestry, and fishing Compensation of employees Indirect business tax and nontax	1.000	1.037	1.001	1.031	1.141	1.032
	.273	.321	.292	.349	.347	.329
liability Property-type income	.053	.058	.054	.064	.062	.058
	.674	.658	.655	.618	.732	.645
Mining  Compensation of employees Indirect business tax and nontax	1.000	.981	.925	.919	1.105	1.097
	.353	.335	.318	.306	.327	.328
liability	.116	.110	.102	.094	.107	.099
Property-type income	.531	.536	.505	.519	.671	.670
Construction  Compensation of employees Indirect business tax and nontax	1.000	1.035	1.076	1.126	1.162	1.198
	.691	.705	.729	.761	.778	.829
liability	.022	.023	.023	.024	.024	.024
Property-type income	.287	.307	.324	.341	.360	.345
Manufacturing  Compensation of employees Indirect business tax and nontax	1.000	1.014	1.019	1.008	1.012	1.007
	.680	.684	.664	.640	.641	.641
liability	.042	.042	.040	.037	.038	.036
Property-type income	.278	.288	.316	.331	.333	.330
Durable goods	1.000	1.012	1.012	.979	.959	.935
	.766	.755	.725	.692	.666	.651
nontax liability	.026	.026	.024	.023	.023	.022
Property-type income	.208	.231	.262	.264	.270	.262
Nondurable goods Compensation of employees Indirect business tax and	1.000 .580	1.017 .597	1.029 .585	1.047 .571	1.083 .602	1.107 .618
nontax liability	.060	.062	.059	.056	.059	.058
Property-type income	.360	.359	.384	.420	.422	.431
Transportation and public utilities Compensation of employees Indirect business tax and nontax	1.000 .454	1.018 .455	1.025 .455	1.041 .467	1.037 .458	1.050 .472
liability	.101	.101	.104	.104	.099	.104
Property-type income	.445	.462	.467	.470	.480	.474
Wholesale trade Compensation of employees Indirect business tax and nontax	1.000	1.016	1.043	1.078	1.068	1.058
	.588	.588	.579	.606	.595	.584
liability Property-type income	.227	.238	.248	.252	.245	.229
	.185	.191	.216	.220	.228	.245
Retail trade	1.000	1.012	1.024	1.023	1.011	.999
	.610	.609	.608	.611	.600	.591
liability	.185	.188	.189	.192	.190	.184
Property-type income	.206	.215	.226	.220	.221	.224
Finance, insurance and real estate Compensation of employees Indirect business tax and nontax	1.000 .242	1.037 .256	1.059 .259	1.129 .269	1.163 .284	1.221 .299
liability	.142	.146	.148	.147	.150	.149
Property-type income	.616	.636	.651	.713	.729	.773
Services  Compensation of employees Indirect business tax and nontax	1.000	1.036	1.075	1.107	1.145	1.185
	.716	.749	.773	.805	.832	.864
liability	.025	.027	.028	.028	.029	.029
	.259	.260	.274	.274	.284	.292

NOTE.—Current-dollar cost per unit of real gross product originating (GPO) equals the GPO price index divided by 100.

<sup>16.</sup> For the Fisher chain-type price index, these weights change each period.

<sup>17.</sup> See the section "Composition of GPO."

<sup>18.</sup> Current-dollar cost per unit of real  $\ensuremath{\mathtt{GPO}}$  equals the  $\ensuremath{\mathtt{GPO}}$  price index divided by 100.

<sup>19.</sup> These unit cost measures differ from the unit labor cost and unit nonlabor cost series published by the Bureau of Labor Statistics (BLS) because of differences in the definition of output. See Department of Labor, Bureau of Labor Statistics, BLS Handbook of Methods, Bulletin 2490 (Washington, DC: U.S. Government Printing Office, April 1997).

of employees per unit of GPO (unit labor costs) increased 1.7 percent. Unit costs for indirect business tax and nontax liability increased 0.4 percent, and unit costs for property-type income increased 3.0 percent. The larger increase in the unit costs for property-type income indicates that

Table 9.—Percent Changes in Current-Dollar Cost Per Unit of Real Gross Product Originating for Private Industry Groups, 1993–1997

	1993	1994	1995	1996	1997	Average annual rate of change, 1992–97
Total	<b>2.5</b> 2.4	<b>1.8</b> .5	<b>2.5</b> 2.4	<b>1.9</b> 1.3	<b>1.7</b> 2.1	<b>2.1</b> 1.7
nontax liability	2.1	2.1	7	.5	-1.3	.4
Property-type income	2.5	4.0	3.6	3.1	1.8	3.0
Agriculture, forestry, and fishing Compensation of employees Indirect business tax and nontax	3.7	-3.5	3.1	10.7	-9.6	.6
	17.6	-9.0	19.6	5	-5.1	3.8
liabilityProperty-type income	9.4	-6.9	18.7	-3.9	-6.5	1.8
	-2.4	5	-5.6	18.5	-12.0	9
Mining  Compensation of employees Indirect business tax and nontax	-1.9	-5.7	7	20.2	7	1.9
	-5.1	-5.1	-4.0	6.8	.4	-1.5
liabilityProperty-type income	-5.2	-7.3	-8.0	14.3	-7.8	-3.1
	.9	-5.8	2.9	29.2	2	4.8
Construction	3.5	4.0	4.7	3.1	3.2	3.7
	2.0	3.4	4.5	2.2	6.6	3.7
liabilityProperty-type income	4.5	0	3.6	1	3.0	1.8
	7.0	5.5	5.4	5.4	-4.2	3.8
Manufacturing Compensation of employees Indirect business tax and nontax	1.4	.5	-1.1	.3	5	.1
	.6	–2.9	-3.6	.2	1	–1.2
liabilityProperty-type income	0	-4.8	-6.0	.6	-3.4	-3.0
	3.6	9.7	4.8	.6	-1.0	3.5
Durable goods  Compensation of employees Indirect business tax and nontax	1.2	0	-3.3	-2.1	-2.5	-1.3
	-1.4	-4.0	-4.6	-3.8	-2.3	-3.2
liability  Property-type income  Nondurable goods  Compensation of employees	0	-7.7	-4.9	-1.6	-4.2	-3.3
	11.1	13.4	.7	2.4	-2.9	4.7
	1.7	1.1	1.8	3.5	2.1	2.0
	2.9	-2.0	-2.4	5.5	2.6	1.3
Indirect business tax and nontax liability Property-type income	3.3	-4.8	-5.5	4.7	8	7
	3	7.0	9.2	.7	1.9	3.7
Transportation and public utilities Compensation of employees Indirect business tax and nontax	1.8	.7	1.6	4	1.3	1.0
	.2	0	2.7	-1.8	3.0	.8
liabilityProperty-type income	0	3.0	.6	-5.2	5.1	.6
	3.8	1.1	.7	2.1	–1.2	1.3
Wholesale trade	1.6	2.7	3.3	9	-1.0	1.1
	0	-1.5	4.6	-1.8	-1.8	1
liabilityProperty-type income	4.8	4.2	1.3	-2.5	-6.7	.2
	3.2	13.1	2.3	3.3	7.4	5.8
Retail trade	1.2	1.1	0	-1.3	-1.1	0
	2	2	.5	-1.9	-1.5	6
liabilityProperty-type income	1.6	.5	1.5	-1.2	-2.9	1
	4.4	5.1	-2.6	.4	1.4	1.7
Finance, insurance, and real estate Compensation of employees Indirect business tax and nontax	3.7 5.8	2.1 1.2	6.6 3.9	2.9 5.5	5.0 5.3	4.1 4.3
liability	2.8	1.4	-1.0	1.9	4	1.0
Property-type income	3.2	2.4	9.5	2.2	6.0	4.6
Services	3.6	3.8	3.0	3.4	3.5	3.4
	4.6	3.2	4.2	3.3	3.9	3.8
liability Property-type income	8.0	3.7	1.5	3.3	.2	3.0
	.4	5.4	.1	3.5	2.6	2.4

capital costs became a larger part of GPO unit costs during the period—that is, the return to capital per unit of gross product increased.

By industry, unit labor costs declined in four private industry groups: Mining, durable goods manufacturing, wholesale trade, and retail trade. Unit labor costs increased in all the other private industry groups. In agriculture, forestry, and fishing, in fire, and in services, the increases in unit labor costs were larger than the increases in total unit costs.

The largest declines in unit labor costs were in industry groups engaged in the production and distribution of goods. In manufacturing, unit labor costs declined at an average annual rate of 1.2 percent, compared with a 0.1-percent increase in total unit costs. Unit labor costs in durable goods manufacturing declined 3.2 percent, while total unit costs declined 1.3 percent. In transportation and public utilities, the percent changes in unit labor costs were smaller than the percent changes in total unit costs; in wholesale trade, unit labor costs declined, while total unit costs increased; and in retail trade, unit labor costs declined, while total unit costs declined, while total unit costs were unchanged.

In 1997, unit labor costs increased 2.1 percent in all private industries, while total unit costs increased 1.7 percent. Unit labor costs increased in all private industry groups except agriculture, forestry, and fishing; durable goods manufacturing; wholesale trade; and retail trade. Unit labor costs in manufacturing declined 0.1 percent: Durable goods manufacturing fell 2.3 percent, marking the fifth consecutive year that unit labor costs fell in this industry group, but nondurable goods manufacturing increased. The largest increases in unit labor costs were in construction, FIRE, and services. In construction, unit labor costs rose faster than total unit costs for the first time since 1992, while unit costs for propertytype income decreased (4.2 percent) for the first time since 1992.

## Changes in the Methodology

This section of the article describes changes in source data and estimating methods that affect the GPO estimates.<sup>20</sup>

#### NIPA SOURCES

The GPO estimates incorporate several changes in methodology from the annual revision of the

<sup>20.</sup> For a detailed description of the GPO methodology, see Yuskavage, "Improved Estimates," 143–149.

NIPA's released in July 1998. These changes include an improved adjustment to remove capital gains from the trading-account activity of security brokers and dealers, and new gross output price measures for several services components of personal consumption expenditures (PCE).<sup>21</sup> The capital gains adjustment affected the estimates of current-dollar GPO and gross output of security and commodity brokers. The new PCE price measures incorporated the new geometric-meantype consumer price indexes from the Bureau of Labor Statistics (BLS). These new PCE deflators affected the estimates of gross output and prices. For example, the PCE price index for "auto rental, leasing, and other," which now incorporates the BLS prices at a more detailed level, was used to

derive real gross output estimates for the auto repair, services, and parking industry.

#### GPO SOURCES

The GPO estimates of real gross output and real intermediate inputs incorporate BEA's price indexes for semiconductors and extend them to 1997 using producer price indexes from BLS. <sup>22</sup> For digital telephone-switching equipment, the BEA price index was extended to 1997 using the price index developed for the NIPA's. The new price index that was developed for PCE cellular telephone services was used to separately deflate cellular telephone services in the telephone and telegraph industry.

Tables 10 through 16 follow.

<sup>21.</sup> See Seskin, "Annual Revision of the National Income and Product Accounts," 20 and 31.

<sup>22.</sup> Semiconductor prices also affect exports and imports in the NIPA's.

Table 10.—Gross Domestic Product by Industry in Current Dollars and As a Percentage of Gross Domestic Product, 1992–97

е		<u> </u>		Billions o	uullars			<u> </u>		Perc	eni		
		1992	1993	1994	1995	1996	1997	1992	1993	1994	1995	1996	1997
1	Gross domestic product	6,244.4	6,558.1	6,947.0	7,269.6	7,661.6	8,110.9	100.0	100.0	100.0	100.0	100.0	100
2	Private industries	5,370.8	5,655.4	6,013.5	6,306.9	6,667.9	7,083.3	86.0	86.2	86.6	86.8	87.0	87
3	Agriculture, forestry, and fishing	112.4	106.1	119.2	109.5	130.4	131.7	1.8	1.6	1.7	1.5	1.7	1
4 5	FarmsAgricultural services, forestry, and fishing	80.5 31.9	73.0 33.1	83.5 35.7	72.3 37.2	91.6 38.8	90.2 41.5	1.3 .5	1.1 .5	1.2 .5	1.0 .5	1.2 .5	1
ŝ	Mining	92.2	94.6	94.9	98.7	113.8	120.5	1.5	1.4	1.4	1.4	1.5	1
1	Metal mining	5.5	5.0	5.9	6.7	6.1	5.8	.1	.1	.1	.1	.1	
B 9	Coal mining Oil and gas extraction	13.6 65.0	12.4 69.1	13.1 66.7	12.0 70.5	12.9 84.3	13.2 90.1	.2 1.0	.2 1.1	.2 1.0	.2 1.0	.2 1.1	1
0	Nonmetallic minerals, except fuels	8.2	8.1	9.2	9.4	10.4	11.4	.1	.1	.1	.1	.1	
1	Construction	229.7	242.4	268.7	286.4	311.9	328.8	3.7	3.7	3.9	3.9	4.1	4
3	Manufacturing  Durable goods	<b>1,063.6</b> 573.4	<b>1,116.5</b> 615.7	<b>1,216.1</b> 679.2	<b>1,282.2</b> 711.6	<b>1,309.1</b> 737.3	<b>1,378.9</b> 784.0	<b>17.0</b> 9.2	<b>17.0</b> 9.4	<b>17.5</b> 9.8	<b>17.6</b> 9.8	<b>17.1</b> 9.6	1
ŀ	Lumber and wood products	32.0	34.6	38.4	40.9	39.1	42.8	.5	.5	.6	.6	.5	
5	Furniture and fixturesStone, clay, and glass products	16.2 25.1	17.7 25.1	18.5 28.8	19.4 30.2	20.5 31.3	22.1 33.7	.3	.3 .4	.3	.3 .4 .7	.3 .4	
1	Primary metal industries	39.0	42.0	46.3	51.7	51.5	53.2	.4 .6	.6	.4 .7	.7	.7	
	Fabricated metal products	70.1	73.7	84.2	87.6	93.1	99.3	1.1	1.1	1.2	1.2 1.9 1.9 1.2	1.2	
)	Industrial machinery and equipment  Electronic and other electric equipment	108.6 98.6	110.9 114.6	122.3 132.9	141.5 136.7	148.8 141.6	158.9 157.3	1.7 1.6	1.7 1.7	1.8 1.9	1.9	1.9 1.8	
	Motor vehicles and equipment	52.8	71.5	87.4	85.2	82.4	85.4	.8	1.1	1.3	1.2	1.1	
2	Other transportation equipment	56.5 54.2	53.5 50.9	49.5 48.7	46.1 49.1	49.0 55.5	50.7 55.9	.9	.8 .8	.7 .7	.6 .7	.6 .7	
	Miscellaneous manufacturing industries	20.1	21.1	22.2	23.3	24.6	24.8	.3	.3	.7 .3 7.7	.3	.3	
	Nondurable goods	490.3	500.8	536.9	570.5	571.8	594.9	.8 .9 .9 .3 7.9 1.6	7.6	7.7	.3 7.8 1.7	7.5	
	Food and kindred products	102.1 18.4	103.2 15.2	109.6 16.3	123.2 17.3	116.0 17.0	118.5 18.4	1.6	1.6 .2	1.6 .2	1.7	1.5	
	Textile mill products	25.4	25.5	25.4	24.5	24.7	25.5	.3 .4 .4 .7	.4	.4	.2 .3	.2 .3	
	Apparel and other textile products	27.2	27.4	28.2	27.4	26.7	28.4	.4	.4 .7	.4 .7	.4	.3 .7	
	Paper and allied products Printing and publishing	45.8 79.7	47.7 80.0	51.3 86.0	58.9 84.7	56.6 92.4	55.0 98.4	1.3	1.2	1.2	.8 1.2	1.2	
	Chemicals and allied products	120.5	124.6	140.6	156.1	155.8	158.8	1.3 1.9	1.9	2.0	.8 1.2 2.1	2.0	:
	Petroleum and coal products	28.2	31.3	30.4	28.3	29.6	35.2	.5 .6	.5	.4	.4 .6	.4	
	Rubber and miscellaneous plastics products Leather and leather products	38.1 4.8	41.3 4.5	44.4 4.7	44.9 5.2	48.6 4.4	52.0 4.8	.b .1	.6 .1	.6 .1	.b .1	.6 .1	
	Transportation and public utilities	528.7	561.7	598.7	616.4	649.3	676.3	8.5	8.6	8.6	8.5	8.5	
	Transportation	192.8 22.1	203.3 22.1	219.9 24.2	226.1 22.9	237.0 23.4	255.5 24.1	3.1	3.1	3.2	3.1	3.1	
	Local and interurban passenger transit	10.9	11.2	11.4	12.2	13.0	13.8	.2	.2	.3 .2	.2	.3 .2	
	Trucking and warehousing	82.2	87.0	95.0	98.0	92.9	97.9	1.3	1.3	1.4	.3 .2 1.3 .1	1.2	
	Water transportation Transportation by air	10.3 43.0	10.1 47.8	10.9 51.7	10.9 53.9	11.7 65.2	12.8 74.4	.4 .2 1.3 .2 .7	.2 .7	.2 .7	.1 .7	.2 .9	
	Pipelines, except natural gas	4.9	4.8	4.6	4.9	5.2	5.6	.1	.1	.11	.1	.1	
;	Transportation services	19.6	20.3	22.1	23.2	25.5	26.8	.3 2.6	.3 2.7	.3 2.7	.3 2.7	.3 2.7	:
3	Communications  Telephone and telegraph	161.1 129.7	175.6 134.6	184.6 142.1	193.3 145.2	207.5 157.0	211.6 158.6	2.6	2.7	2.7	2.7	2.0	:
7	Radio and television	31.5	41.0	42.5	48.1	50.4	53.1	.5 2.8	.6	.6	.7	.7	
3	Electric, gas, and sanitary services	174.7	182.8	194.2	197.0	204.9	209.2		2.8	2.8	2.7	2.7	2
9	Wholesale trade	406.4	423.3	468.0	491.4	519.8	562.8	6.5	6.5	6.7	6.8	6.8	6
0	Retail trade	544.3	573.2	615.3	641.0	673.0	712.9	8.7	8.7	8.9	8.8	8.8	8
2	Finance, insurance, and real estate	<b>1,147.9</b> 200.1	<b>1,218.1</b> 203.0	<b>1,267.6</b> 207.4	<b>1,362.3</b> 229.1	<b>1,448.6</b> 240.6	<b>1,570.3</b> 266.4	<b>18.4</b> 3.2	<b>18.6</b> 3.1	<b>18.2</b> 3.0	<b>18.7</b> 3.2	<b>18.9</b> 3.1	19
3	Nondepository institutions	28.3	37.6	36.1	39.7	44.3	56.3	.5	.6	.5	.5	.6	
3 4 5	Security and commodity brokers	49.5	63.9	78.5	73.4	96.5	106.6	.8	1.0	1.1	1.0	1.3	
6	Insurance carriers	83.4 39.5	106.6 41.5	108.8 45.0	118.5 46.7	122.0 48.0	146.0 50.7	1.3 .6	1.6 .6	1.6 .6	1.6 .6	1.6 .6	
'	Real estate	734.9	759.0	802.9	843.8	892.2	935.0	11.8	11.6	11.6	11.6	11.6	1
3	Nonfarm housing services Other real estate	553.5 181.4	568.7 190.2	607.3 195.6	643.1 200.7	675.8 216.4	712.7 222.4	8.9 2.9	8.7 2.9	8.7 2.8	8.8 2.8	8.8 2.8	
Ó	Holding and other investment offices	12.3	6.7	-11.1	11.0	5.1	9.4	.2	.1	2	.2	.1	ĺ ,
l	Services	1,200.8	1,267.0	1,350.4	1,445.4	1,544.2	1,656.8	19.2	19.3	19.4	19.9	20.2	20
3	Hotels and other lodging places  Personal services	51.0 41.0	53.8 44.3	57.4 45.8	61.3 47.4	65.6 47.8	69.0 51.5	.8 .7	.8 .7	.8 .7	.8 .7	.9 .6	
ļ	Business services	218.9	233.5	256.0	284.9	322.1	364.7	3.5	3.6	3.7	3.9	4.2	
5	Auto repair, services, and parking	51.1 17.5	54.3	59.3	63.6	68.3	73.3	.8	.8	.9	.9	4.2 .9 .3	
3	Miscellaneous repair services	17.5 20.0	19.0 23.4	19.2 23.0	20.5 26.3	21.7 28.4	23.2 30.5	.8 .3 .3 .8 5.9	.3 .4	.9 .3 .3 .7	3.9 .9 .3 .4 .8 5.9 1.3 .6 .6	.3	
3	Amusement and recreation services	47.9	47.8	51.4	56.6	61.3	66.7	.8	.7	7	8	.8	
)	Health services Legal services	369.1 90.1	386.6 91.6	410.2 93.8	428.9 96.6	445.5 100.7	460.1 106.6	5.9	5.9 1.4	5.9 1.4	5.9	5.8 1.3	
)	Educational services	46.3	48.9	52.3	55.3	58.1	61.5	1.4 .7	.7	.8	.8	.8	
2	Social services	36.9	39.8	43.2	46.4	49.0	52.2	.6 .6	.6	.6	.6	.6	
1	Membership organizations Other services	38.9 162.2	42.2 171.1	45.1 182.6	47.0 198.8	49.2 214.6	50.8 234.6	2.6	.6 2.6	.6 2.6	2.7	.6 2.8	:
	Private households	10.1	10.7	11.0	11.8	11.9	12.0	.2	.2	.2	.2	.2	
ì	Statistical discrepancy 1	44.8	52.6	14.6	-26.5	-32.2	-55.8	.7	.8	.2	4	4	
7	Government	873.6	902.7	933.5	962.7	993.7	1,027.6	14.0	13.8	13.4	13.2	13.0	1:
3	Federal	<b>321.4</b> 274.4	<b>323.4</b> 276.9	<b>324.9</b> 275.2	<b>327.7</b> 275.4	<b>334.8</b> 279.2	<b>338.1</b> 281.3	5.1 4.4	<b>4.9</b> 4.2	<b>4.7</b> 4.0	<b>4.5</b> 3.8	<b>4.4</b> 3.6	3
)	Government enterprises	47.0	46.5	49.7	52.3	55.5	56.8	.8	.7	.7	.7	.7	
1	State and local	<b>552.2</b> 506.6	<b>579.3</b> 531.6	<b>608.6</b> 557.5	<b>635.0</b> 582.2	<b>658.9</b> 604.4	<b>689.6</b> 631.7	<b>8.8</b> 8.1	<b>8.8</b> 8.1	<b>8.8</b> 8.0	<b>8.7</b> 8.0	<b>8.6</b> 7.9	1
3	Government enterprises	45.6	47.6	51.1	52.8	54.5	57.9	.7	.7	.7	.7	.7	

<sup>1.</sup> Equals GDP measured as the sum of expenditures less gross domestic income.

Table 11.—Components of Gross Product and As a Percentage of Gross Domestic Product by Industry Group, 1992–97

			Bi	llions of cu	ırrent dolla	rs		Percent					
Line		1992	1993	1994	1995	1996	1997	1992	1993	1994	1995	1996	1997
1 2 3 4 5	Gross domestic product Compensation of employees Indirect business tax and nontax liabilities Property-type income Statistical discrepancy <sup>1</sup>	<b>6,244.4</b> 3,645.0 505.6 2,049.0 44.8	<b>6,558.1</b> 3,817.0 532.5 2,156.0 52.6	<b>6,947.0</b> 4,014.5 568.5 2,349.4 14.6	<b>7,269.6</b> 4,211.6 581.2 2,503.3 -26.5	<b>7,661.6</b> 4,411.8 606.4 2,675.6 -32.2	8,110.9 4,690.3 627.2 2,849.2 -55.8	100.0 58.4 8.1 32.8 .7	100.0 58.2 8.1 32.9 .8	100.0 57.8 8.2 33.8 .2	100.0 57.9 8.0 34.5 4	100.0 57.6 7.9 34.9 4	100.0 57.8 7.7 35.2 7
6 7 8 9 10	Private industries  Compensation of employees Indirect business tax and nontax liabilities Property-type income Statistical discrepancy <sup>1</sup>	<b>5,370.8</b> 2,893.2 505.6 1,927.2 44.8	<b>5,655.4</b> 3,041.2 532.5 2,029.1 52.6	<b>6,013.5</b> 3,213.8 568.5 2,216.6 14.6	<b>6,306.9</b> 3,388.0 581.2 2,364.2 -26.5	6,667.9 3,563.3 606.4 2,530.4 -32.2	<b>7,083.3</b> 3,812.9 627.2 2,699.0 -55.8	100.0 53.9 9.4 35.9 .8	100.0 53.8 9.4 35.9 .9	100.0 53.4 9.5 36.9 .2	100.0 53.7 9.2 37.5 4	100.0 53.4 9.1 38.0 5	100.0 53.8 8.9 38.1 8
11	Agriculture, forestry, and fishing Compensation of employees Indirect business tax and nontax liabilities Property-type income	112.4	106.1	119.2	109.5	130.4	131.7	100.0	100.0	100.0	100.0	100.0	100.0
12		30.7	32.9	34.8	37.1	39.7	42.1	27.3	31.0	29.2	33.9	30.4	32.0
13		6.0	5.9	6.5	6.8	7.1	7.4	5.3	5.6	5.5	6.2	5.4	5.6
14		75.7	67.3	77.9	65.6	83.6	82.2	67.4	63.4	65.3	59.9	64.2	62.4
15	Mining Compensation of employees Indirect business tax and nontax liabilities Property-type income	92.2	94.6	94.9	98.7	113.8	120.5	100.0	100.0	100.0	100.0	100.0	100.0
16		32.5	32.3	32.7	32.9	33.6	36.0	35.2	34.1	34.5	33.3	29.5	29.9
17		10.7	10.6	10.4	10.1	11.0	10.8	11.6	11.2	11.0	10.2	9.7	9.0
18		49.0	51.7	51.8	55.7	69.2	73.7	53.2	54.7	54.5	56.5	60.8	61.1
19	Construction Compensation of employees Indirect business tax and nontax liabilities Property-type income	229.7	242.4	268.7	286.4	311.9	328.8	100.0	100.0	100.0	100.0	100.0	100.0
20		158.7	165.2	182.0	193.6	208.9	227.6	69.1	68.2	67.7	67.6	67.0	69.2
21		5.0	5.3	5.7	6.0	6.3	6.6	2.2	2.2	2.1	2.1	2.0	2.0
22		66.0	71.9	81.0	86.8	96.7	94.6	28.7	29.6	30.2	30.3	31.0	28.8
23	Manufacturing Compensation of employees Indirect business tax and nontax liabilities Property-type income	1,063.6	1,116.5	1,216.1	1,282.2	1,309.1	1,378.9	100.0	100.0	100.0	100.0	100.0	100.0
24		723.4	753.3	792.0	813.9	829.6	877.6	68.0	67.5	65.1	63.5	63.4	63.6
25		44.6	46.0	47.4	47.5	48.6	49.7	4.2	4.1	3.9	3.7	3.7	3.6
26		295.6	317.2	376.7	420.8	430.9	451.6	27.8	28.4	31.0	32.8	32.9	32.8
27	Durable goods Compensation of employees Indirect business tax and nontax liabilities Property-type income	573.4	615.7	679.2	711.6	737.3	784.0	100.0	100.0	100.0	100.0	100.0	100.0
28		439.1	459.5	486.8	502.8	511.9	545.6	76.6	74.6	71.7	70.7	69.4	69.6
29		15.0	15.6	16.4	16.8	17.5	18.3	2.6	2.5	2.4	2.4	2.4	2.3
30		119.3	140.6	176.0	192.0	207.9	220.1	20.8	22.9	25.9	26.9	28.2	28.1
31	Nondurable goods Compensation of employees Indirect business tax and nontax liabilities Property-type income	490.3	500.8	536.9	570.5	571.8	594.9	100.0	100.0	100.0	100.0	100.0	100.0
32		284.3	293.8	305.2	311.1	317.7	332.1	58.0	58.7	56.8	54.5	55.6	55.8
33		29.6	30.4	31.0	30.6	31.1	31.4	6.0	6.1	5.8	5.4	5.4	5.3
34		176.4	176.6	200.7	228.8	223.0	231.4	36.0	35.2	37.4	40.1	39.0	38.9
35	Transportation and public utilities Compensation of employees Indirect business tax and nontax liabilities Property-type income	528.7	561.7	598.7	616.4	649.3	676.3	100.0	100.0	100.0	100.0	100.0	100.0
36		240.0	251.3	265.6	276.4	287.0	304.2	45.4	44.7	44.4	44.8	44.2	45.0
37		53.4	55.6	60.5	61.7	61.9	66.9	10.1	9.9	10.1	10.0	9.5	9.9
38		235.3	254.8	272.6	278.3	300.4	305.2	44.5	45.4	45.5	45.2	46.3	45.1
39	Wholesale trade Compensation of employees Indirect business tax and nontax liabilities Property-type income	406.4	423.3	468.0	491.4	519.8	562.8	100.0	100.0	100.0	100.0	100.0	100.0
40		239.1	244.7	259.8	276.1	289.4	310.7	58.8	57.8	55.5	56.2	55.7	55.2
41		92.1	99.0	111.4	114.7	119.4	121.7	22.7	23.4	23.8	23.3	23.0	21.6
42		75.2	79.6	96.8	100.6	111.0	130.4	18.5	18.8	20.7	20.5	21.3	23.2
43	Retail trade Compensation of employees Indirect business tax and nontax liabilities Property-type income	544.3	573.2	615.3	641.0	673.0	712.9	100.0	100.0	100.0	100.0	100.0	100.0
44		331.8	344.7	365.7	382.9	399.5	421.5	61.0	60.1	59.4	59.7	59.4	59.1
45		100.6	106.5	113.9	120.4	126.4	131.5	18.5	18.6	18.5	18.8	18.8	18.4
46		111.9	122.0	135.7	137.7	147.1	159.9	20.5	21.3	22.1	21.5	21.8	22.5
47	Finance, insurance, and real estate Compensation of employees Indirect business tax and nontax liabilities Property-type income	1,147.9	1,218.1	1,267.6	1,362.3	1,448.6	1,570.3	100.0	100.0	100.0	100.0	100.0	100.0
48		277.2	300.5	310.2	324.7	353.8	384.6	24.1	24.7	24.5	23.8	24.4	24.5
49		163.6	171.0	177.6	177.1	186.4	191.5	14.3	14.0	14.0	13.0	12.9	12.2
50		707.1	746.6	779.8	860.5	908.4	994.2	61.6	61.3	61.5	63.2	62.7	63.3
51	Services Compensation of employees Indirect business tax and nontax liabilities Property-type income	1,200.8	1,267.0	1,350.4	1,445.4	1,544.2	1,656.8	100.0	100.0	100.0	100.0	100.0	100.0
52		859.8	916.3	971.0	1,050.5	1,121.8	1,208.6	71.6	72.3	71.9	72.7	72.6	72.9
53		29.6	32.6	35.0	36.9	39.4	41.0	2.5	2.6	2.6	2.6	2.6	2.5
54		311.4	318.1	344.4	358.0	383.0	407.2	25.9	25.1	25.5	24.7	24.8	24.6
55	Government Compensation of employees Indirect business tax and nontax liabilities Property-type income	<b>873.6</b>	<b>902.7</b>	<b>933.5</b>	<b>962.7</b>	<b>993.7</b>	<b>1,027.6</b>	100.0	100.0	100.0	100.0	100.0	<b>100.0</b>
56		751.9	775.8	800.7	823.6	848.5	877.5	86.1	85.9	85.8	85.6	85.4	85.4
57		0	0	0	0	0	0	0	0	0	0	0	0
58		121.7	126.9	132.8	139.1	145.2	150.1	13.9	14.1	14.2	14.4	14.6	14.6

<sup>1.</sup> Equals GDP measured as the sum of expenditures less gross domestic income.

Table 12.—Chain-Type Quantity and Price Indexes for Gross Domestic Product by Industry, 1992–97

Line.			Qua	es (1992=1	00)			Price indexes (1992=100)					
Line		1992	1993	1994	1995	1996	1997	1992	1993	1994	1995	1996	1997
1	Gross domestic product	100.00	102.32	105.87	108.28	112.02	116.42	100.00	102.64	105.09	107.51	109.53	111.57
2	Private industries	100.00	102.73	107.31	109.79	113.95	119.07	100.00	102.50	104.34	106.96	108.95	110.76
3	Agriculture, forestry, and fishing	100.00	91.06	106.02	94.48	101.67	113.59	100.00	103.70	100.08	103.14	114.13	103.21
4 5	Farms Agricultural services, forestry, and fishing	100.00 100.00	88.13 98.97	105.49 109.55	89.49 108.70	97.60 113.59	112.15 119.17	100.00 100.00	102.96 104.84	98.34 102.29	100.35 107.42	116.63 107.08	99.93 109.31
6	Mining	100.00	104.46	111.16	116.48	111.63	119.10	100.00	98.14	92.52	91.90	110.49	109.69
7 8	Metal mining	100.00 100.00	102.06 102.07	103.53 114.13	99.94 113.33	103.45 126.89	113.31 133.30	100.00 100.00	89.03 89.57	104.13 84.72	123.21 78.38	108.35 75.10	93.95 73.08
9 10	Oil and gas extraction	100.00 100.00	105.50 101.35	111.07 112.49	119.02 113.54	108.53 124.81	115.92 132.47	100.00 100.00	100.76 97.27	92.33 99.63	91.12 101.52	119.47 101.83	119.49 105.14
11	Construction	100.00	102.03	108.76	110.70	116.91	119.47	100.00	103.45	107.58	112.65	116.16	119.84
12	Manufacturing	100.00	103.50	112.18	119.55	121.64	128.79	100.00	101.42	101.92	100.83	101.18	100.66
13 14	Durable goods Lumber and wood products	100.00 100.00	106.10 89.15	117.08 93.13	126.80 99.08	134.12 98.06	146.26 103.23	100.00 100.00	101.21 121.37	101.17 128.93	97.88 128.87	95.87 124.51	93.48 129.37
15	Furniture and fixtures	100.00	110.23	111.25	115.14	115.06	121.37	100.00	98.98	102.80	103.77	109.80	112.41
16 17	Stone, clay, and glass products Primary metal industries	100.00 100.00	97.60 110.70	107.59 115.42	108.58 113.01	110.16 120.37	117.03 123.04	100.00 100.00	102.72 97.34	106.65 102.76	110.99 117.39	113.22 109.80	114.67 110.86
18	Fabricated metal products	100.00	104.75	120.69	125.36	126.53	132.68	100.00	100.41	99.63	99.73	105.02	106.79
19 20	Industrial machinery and equipment	100.00 100.00	105.91 120.00	121.08 147.85	149.93 181.28	168.60 216.22	198.04 264.94	100.00 100.00	96.42 96.83	92.98 91.18	86.84 76.47	81.24 66.40	73.85 60.21
21	Electronic and other electric equipment	100.00	126.17	147.61	146.95	138.57	147.20	100.00	107.27	111.98	109.72	112.48	109.75
22	Other transportation equipment	100.00 100.00	92.51 89.74	84.19 83.19	76.60 77.37	77.67 74.13	77.94 66.88	100.00 100.00	102.26 104.52	103.91 107.96	106.46 116.92	111.61 137.96	115.04 154.09
23 24	Miscellaneous manufacturing industries	100.00	101.83	106.84	113.34	115.45	114.59	100.00	102.83	103.04	102.13	105.57	107.62
25 26	Nondurable goods	100.00	100.46	106.47	111.18	107.66	109.65	100.00	101.70	102.86	104.67	108.34	110.67
26 27	Food and kindred products Tobacco products	100.00 100.00	101.62 87.88	104.24 121.46	123.12 129.52	103.47 122.29	104.48 116.16	100.00 100.00	99.46 93.98	102.91 72.93	97.93 72.68	109.73 75.73	111.01 86.30
28	Textile mill products	100.00	102.13	107.52	103.92	100.51	101.20	100.00	98.15	92.92	92.88	96.77	99.21
29 30	Apparel and other textile products Paper and allied products	100.00 100.00	100.14 109.44	104.23 113.75	105.08 96.86	99.24 101.30	103.66 106.74	100.00 100.00	100.75 95.05	99.65 98.48	95.84 132.74	99.13 121.83	100.78 112.42
31	Printing and publishing	100.00	94.39	97.80	96.74	95.48	96.17	100.00	106.31	110.27	109.75	121.32	128.28
32 33	Chemicals and allied products  Petroleum and coal products	100.00 100.00	100.12 98.56	108.93 97.87	115.89 107.86	116.43 114.61	117.23 114.85	100.00 100.00	103.35 112.66	107.16 109.98	111.82 93.08	111.10 91.59	112.46 108.56
34	Rubber and miscellaneous plastics products	100.00	108.33	119.18	123.53	130.01	140.99	100.00	100.05	97.75	95.49	98.05	96.73
35	Leather and leather products	100.00	93.61	93.48	99.47	86.69	91.13	100.00	101.75	105.72	109.40	106.82	109.34
36 37	Transportation and public utilities	<b>100.00</b> 100.00	<b>104.40</b> 104.29	<b>110.50</b> 111.17	<b>112.02</b> 112.09	<b>118.48</b> 119.12	<b>121.88</b> 125.25	<b>100.00</b> 100.00	<b>101.76</b> 101.12	<b>102.49</b> 102.60	<b>104.09</b> 104.61	<b>103.67</b> 103.19	<b>104.97</b> 105.80
38 39	Railroad transportation	100.00 100.00	104.35 100.68	117.35 101.45	118.15	127.62	127.72	100.00 100.00	95.98 101.95	93.51	87.99	83.21	85.69
40	Local and interurban passenger transit  Trucking and warehousing	100.00	100.88	101.43	105.02 108.44	103.93 105.25	104.15 106.24	100.00	100.96	103.38 107.01	106.44 109.97	115.12 107.40	122.03 112.21
41	Water transportation	100.00	102.39	104.79	106.59	104.20	107.19	100.00	96.14	100.86	99.88	109.09	116.38
42 43	Transportation by airPipelines, except natural gas	100.00 100.00	102.88 107.05	119.67 98.51	117.68 100.38	147.70 129.44	168.95 140.37	100.00 100.00	108.15 92.57	100.57 95.69	106.56 100.33	102.77 82.87	102.50 81.37
44	Transportation services	100.00	107.35	110.74	118.36	122.60	128.53	100.00	96.65	102.12	100.37	106.47	106.45
45 46	Communications Telephone and telegraph	100.00 100.00	106.65 103.01	109.78 106.36	112.14 106.88	118.82 117.49	121.92 123.88	100.00 100.00	102.17 100.78	104.38 103.06	107.00 104.76	108.37 103.08	107.73 98.70
47	Radio and television	100.00	121.20	123.45	132.83	125.69	118.63	100.00	107.44	109.43	115.21	127.51	142.20
48 49	Electric, gas, and sanitary services	100.00 100.00	102.45 <b>102.48</b>	110.49 110.37	111.91 <b>112.14</b>	117.48 <b>119.73</b>	118.04 130.90	100.00 100.00	102.11 <b>101.62</b>	100.57 <b>104.34</b>	100.77 <b>107.82</b>	99.79 <b>106.82</b>	101.42 <b>105.78</b>
50	Wholesale trade  Retail trade	100.00	104.02	110.44	115.07	122.34	131.09	100.00	101.02	102.36	102.35	101.07	99.91
51	Finance, insurance, and real estate	100.00	102.30	104.27	105.08	108.55	112.03	100.00	103.73	105.91	112.94	116.26	122.11
52	Depository institutions	100.00	99.25	98.45	96.66	95.96	95.91	100.00	102.18	105.25	118.46	125.29	138.79
53 54	Nondepository institutions Security and commodity brokers	100.00 100.00	113.83 132.00	119.75 167.57	115.06 158.38	124.94 210.29	138.76 243.32	100.00 100.00	116.64 97.74	106.32 94.69	121.89 93.65	125.00 92.72	143.23 88.47
55	Insurance carriers	100.00	109.75	109.50	109.37	105.08	112.19	100.00	116.51	119.19	129.97	139.32	156.08
56 57	Insurance agents, brokers, and serviceReal estate	100.00 100.00	100.61 100.25	105.46 103.20	106.59 105.69	105.78 108.79	109.32 110.88	100.00 100.00	104.49 103.03	108.21 105.88	111.00 108.65	114.97 111.60	117.52 114.75
58	Nonfarm housing services	100.00	99.80	103.59	106.32	108.40	111.32	100.00	102.96	105.93	109.30	112.64	115.68
59 60	Other real estate	100.00 100.00	101.59 104.72	102.00 105.15	103.75 102.57	110.08 101.72	109.54 99.14	100.00 100.00	103.22 51.86	105.72 -85.81	106.63 87.55	108.37 40.77	111.91 76.88
61	Services	100.00	101.89	104.64	108.70	112.34	116.47	100.00	103.55	107.47	110.73	114.47	118.46
62	Hotels and other lodging places	100.00	101.62	106.64	110.23	112.87	111.42	100.00	103.89	105.59	109.07	113.95	121.52
63 64	Personal services	100.00 100.00	104.02 106.99	103.90 112.89	105.59 123.95	103.50 135.08	107.72 147.60	100.00 100.00	103.95 99.68	107.69 103.60	109.67 105.00	112.84 108.94	116.84 112.88
65	Auto repair, services, and parking	100.00	100.93	104.33	110.54	117.77	125.94	100.00	106.16	111.22	112.52	113.45	113.85
66 67	Miscellaneous repair services	100.00 100.00	97.50 116.08	95.54 109.29	96.27 122.16	86.67	84.01 132.97	100.00 100.00	111.46 100.91	114.85	121.64 108.00	142.71	157.52 114.76
68	Motion pictures	100.00	96.12	99.12	105.39	125.98 110.09	117.30	100.00	100.91	105.39 108.31	112.09	112.82 116.22	118.74
69	Health services	100.00	98.96	100.17	101.14	102.25	102.69	100.00	105.85	110.97	114.89	118.07	121.40
70 71	Legal services Educational services	100.00 100.00	96.73 102.75	95.45 105.84	95.10 106.01	95.40 106.74	96.46 108.89	100.00 100.00	105.02 102.88	109.04 106.83	112.65 112.70	117.13 117.65	122.60 122.17
72	Social services	100.00	106.05	112.92	117.77	120.98	125.55	100.00	101.81	103.69	106.94	109.78	112.84
73 74	Membership organizations Other services	100.00 100.00	104.76 103.44	108.11 108.15	109.35 113.27	111.35 118.85	113.39 124.14	100.00 100.00	103.49 102.02	107.09 104.08	110.46 108.20	113.46 111.35	115.14 116.55
75	Private households	100.00	102.52	102.91	106.98	104.40	101.11	100.00	103.17	106.30	109.54	113.41	117.56
76	Government	100.00	100.25	100.53	100.33	100.48	101.19	100.00	103.07	106.29	109.83	113.21	116.24
77 78 79	Federal General government Government optomics	100.00 100.00	98.03 97.58	95.50 94.18	92.35 90.44	90.31 87.71	89.26 85.80	100.00 100.00	102.64 103.41	105.87 106.49	110.42 110.99	115.35 116.02	117.85 119.48
79 80	Government enterprises	100.00 100.00	100.80 <b>101.54</b>	103.40 103.45	103.90 <b>104.97</b>	106.00 106.40	110.40 <b>108.17</b>	100.00	98.21 <b>103.31</b>	102.31 <b>106.52</b>	107.12 109.54	111.48 112.14	109.51 <b>115.43</b>
81	General government	100.00	101.56	103.47	105.04	106.74	108.83	100.00	103.33	106.35	109.40	111.76	114.57
82	Government enterprises	100.00	101.30	103.20	104.20	102.70	101.20	100.00	103.12	108.52	111.06	116.42	125.42

#### Table 13.—Real Gross Domestic Product by Industry, 1992-97

[Billions of chained (1992) dollars]

Line		1992	1993	1994	1995	1996	1997
1	Gross domestic product	6,244.4	6,389.6	6,610.7	6,761.7	6,994.8	7,269.8
2	Private industries	5,370.8	5,517.4		5,896.5	,	,
				5,763.6		6,119.9	6,395.3
3 4	Agriculture, forestry, and fishing	112.4 80.5	<b>102.3</b> 70.9	119.1 84.9	<b>106.2</b> 72.0	<b>114.2</b> 78.6	<b>127.6</b> 90.3
5	Agricultural services, forestry, and fishing	31.9	31.6	34.9	34.7	36.2	38.0
6	Mining	92.2	96.4	102.5	107.4	103.0	109.9
7 8	Metal mining	5.5 13.6	5.6 13.8	5.7 15.5	5.5 15.4	5.7 17.2	6.2 18.1
9	Oil and gas extraction	65.0	68.6	72.2	77.4	70.6	75.4
10	Nonmetallic minerals, except fuels	8.2	8.3	9.2	9.3	10.2	10.8
11	Construction	229.7	234.3	249.8	254.2	268.5	274.4
12	Manufacturing	1,063.6	1,100.8	1,193.2	1,271.6	1,293.8	1,369.9
13 14	Durable goods Lumber and wood products	573.4 32.0	608.3 28.5	671.3 29.8	727.0 31.7	769.0 31.4	838.6 33.1
15	Furniture and fixtures	16.2	17.9	18.0	18.7	18.6	19.7
16 17	Stone, clay, and glass products  Primary metal industries	25.1 39.0	24.5 43.2	27.0 45.0	27.2 44.1	27.6 46.9	29.3 48.0
18	Fabricated metal products	70.1	73.4	84.5	87.8	88.6	93.0
19	Industrial machinery and equipment	108.6	115.1	131.5	162.9	183.2	215.2
20 21	Electronic and other electric equipment	98.6 52.8	118.3 66.7	145.8 78.0	178.7 77.7	213.2 73.2	261.2 77.8
22	Other transportation equipment	56.5	52.3	47.6	43.3	43.9	44.1
23	Instruments and related products	54.2	48.7	45.1	42.0	40.2	36.3
24 25	Miscellaneous manufacturing industries  Nondurable goods	20.1 490.3	20.5 492.5	21.5 522.0	22.8 545.1	23.3 527.8	23.1 537.6
26	Food and kindred products	102.1	103.8	106.5	125.8	105.7	106.7
27	Tobacco products	18.4	16.1	22.3	23.8	22.5	21.3
28 29	Textile mill products	25.4 27.2	26.0 27.2	27.3 28.3	26.4 28.6	25.6 27.0	25.7 28.2
30	Paper and allied products	45.8	50.2	52.1	44.4	46.4	48.9
31	Printing and publishing	79.7	75.3	78.0	77.1	76.1	76.7
32 33	Chemicals and allied products	120.5 28.2	120.6 27.8	131.2 27.6	139.6 30.4	140.3 32.3	141.2 32.4
34	Petroleum and coal products	38.1	41.3	45.4	47.1	49.5	53.7
35	Leather and leather products	4.8	4.5	4.5	4.7	4.1	4.3
36	Transportation and public utilities	528.7	551.9	584.1	592.2	626.4	644.3
37	Transportation	192.8	201.1	214.3	216.1	229.7	241.5
38 39	Railroad transportation	22.1 10.9	23.0 11.0	25.9 11.0	26.1 11.4	28.2 11.3	28.2 11.3
40	Trucking and warehousing	82.2	86.2	88.7	89.1	86.5	87.3
41	Water transportation	10.3	10.5	10.8	11.0	10.7	11.0
42 43	Transportation by air	43.0 4.9	44.2 5.2	51.4 4.8	50.6 4.9	63.5 6.3	72.6 6.8
44	Transportation services	19.6	21.0	21.7	23.2	24.0	25.1
45	Communications	161.1	171.8	176.9	180.7	191.5	196.4
46 47	Telephone and telegraph	129.7 31.5	133.6 38.1	137.9 38.8	138.6 41.8	152.4 39.5	160.6 37.3
48	Electric, gas, and sanitary services	174.7	179.0	193.1	195.5	205.3	206.3
49	Wholesale trade	406.4	416.5	448.6	455.8	486.6	532.0
50	Retail trade	544.3	566.2	601.2	626.4	665.9	713.5
51	Finance, insurance, and real estate	1,147.9	1,174.3	1,196.9	1,206.2	1,246.0	1,286.0
52	Depository institutions	200.1	198.6	197.0	193.4	192.0	191.9
53	Nondepository institutions	28.3	32.3	33.9	32.6	35.4	39.3
54 55	Security and commodity brokers	49.5 83.4	65.3 91.5	83.0 91.3	78.4 91.2	104.1 87.6	120.5 93.5
56	Insurance agents, brokers, and service	39.5	39.7	41.6	42.1	41.7	43.1
57	Real estate	734.9	736.7	758.3	776.6	799.5	814.8
58 59	Nonfarm housing services	553.5 181.4	552.4 184.3	573.3 185.0	588.4 188.2	600.0 199.7	616.1 198.7
60	Holding and other investment offices	12.3	12.9	12.9	12.6	12.5	12.2
61	Services	1,200.8	1,223.5	1,256.5	1,305.3	1,349.1	1,398.6
62	Hotels and other lodging places	51.0	51.8	54.4	56.2	57.5	56.8
63 64	Personal services Business services	41.0 218.9	42.6 234.2	42.6 247.1	43.2 271.3	42.4 295.7	44.1 323.1
65	Auto repair, services, and parking	51.1	51.1	53.3	56.5	60.2	64.4
66	Miscellaneous repair services	17.5	17.1	16.7	16.9	15.2	14.7
67 68	Motion pictures	20.0 47.9	23.2 46.0	21.8 47.5	24.4 50.5	25.2 52.7	26.6 56.2
69	Health services	369.1	365.2	369.7	373.3	377.3	379.0
70	Legal services	90.1	87.2	86.0	85.7	86.0	87.0
71 72	Educational services	46.3 36.9	47.5 39.1	48.9 41.6	49.0 43.4	49.4 44.6	50.4 46.3
73	Membership organizations	38.9	40.8	42.1	42.6	43.3	44.1
74	Other services	162.2	167.8	175.4	183.7	192.8	201.3
75	Private households	10.1	10.3	10.4	10.8	10.5	10.2
76	Statistical discrepancy 1	44.8	51.3	13.9	-23.1	-27.1	-45.4
77	Government	873.6	875.8	878.3	876.5	877.8	884.0
78	Federal	321.4	315.1	306.9	296.8	290.2	286.9
79 80	General government	274.4 47.0	267.7 47.4	258.4 48.6	248.2 48.8	240.7 49.8	235.4 51.9
	•						
81 82	State and local	<b>552.2</b> 506.6	<b>560.7</b> 514.5	<b>571.3</b> 524.2	<b>579.7</b> 532.1	<b>587.6</b> 540.8	<b>597.4</b> 551.3
83	Government enterprises	45.6	46.2	47.1	47.5	46.8	46.2
84	Not allocated by industry <sup>2</sup>	0	-7.8	-60.4	-53.7	-68.8	-114.3

Equals the current-dollar statistical discrepancy deflated by the implicit price deflator for gross domestic business product.
 Equals GDP less the statistical discrepancy and the sum of GPO of the detailed industries.
 NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive.

Table 14.—Gross Output and Intermediate Inputs by Industry, 1992-97

[Billions of dollars]

		Gross output						Intermediate inputs						
ine		1992	1993	1994	1995	1996	1997	1992	1993	1994	1995	1996	1997	
1	Gross domestic product 1													
2	Private industries <sup>1</sup>													
3	Agriculture, forestry, and fishing	224.5	224.9	242.1	239.6	269.9	277.2	112.1	118.8	122.9	130.1	139.5	145.	
4	Farms	187.7	186.5	202.9	196.7	222.1	225.3	107.2	113.5	119.4	124.4	130.5	135.	
5	Agricultural services, forestry, and fishing	36.8	38.4	39.2	42.9	47.8	51.9	4.9	5.3	3.5	5.6	9.0	10.	
6 7	Mining	<b>160.0</b> 11.4	<b>160.2</b> 10.6	<b>157.5</b> 12.0	<b>156.5</b> 13.2	<b>185.1</b> 12.4	<b>190.2</b> 11.8	<b>67.7</b> 5.9	<b>65.7</b> 5.6	<b>62.6</b> 6.1	<b>57.8</b> 6.4	<b>71.4</b> 6.3	<b>69.</b> 6.	
8	Coal mining	28.9	26.0	27.8	26.8	27.2	27.6	15.4	13.6	14.7	14.8	14.3	14.	
9 10	Oil and gas extraction	105.5 14.1	109.4 14.2	102.0 15.6	100.2 16.4	128.5 17.0	132.7 18.0	40.5 5.9	40.2 6.2	35.3 6.4	29.6 7.0	44.2 6.6	42. 6.	
11	Construction	432.1	457.4	493.1	516.2	554.3	592.7	202.5	215.0	224.4	229.8	242.4	263.	
12 13	Manufacturing  Durable goods	<b>2,961.2</b> 1,510.3	<b>3,096.6</b> 1,613.6	<b>3,313.3</b> 1,770.3	<b>3,558.0</b> 1,907.5	<b>3,674.5</b> 1,983.0	<b>3,891.1</b> 2,137.3	<b>1,897.6</b> 937.0	<b>1,980.1</b> 997.9	<b>2,097.2</b> 1,091.1	<b>2,275.8</b> 1,195.9	<b>2,365.4</b> 1,245.8	<b>2,512</b> . 1,353.	
14 15	Lumber and wood products	84.3 43.2	97.4	106.6	108.6	109.6	114.7	52.3	62.8	68.2	67.7	70.5	71.	
16	Furniture and fixtures	61.5	46.2 64.4	49.7 70.0	52.9 75.1	55.2 81.3	60.6 88.8	27.0 36.5	28.5 39.3	31.2 41.2	33.5 44.9	34.7 50.0	38 55	
17	Primary metal industries	138.0	142.8	161.1	180.4	178.6	188.1	99.1	100.7	114.9	128.7	127.1	134	
18 19	Fabricated metal products	164.9 251.2	172.7 272.2	188.8 305.8	202.5 347.5	212.0 371.4	224.2 399.5	94.8 142.5	99.0 161.2	104.5 183.4	114.9 206.1	118.9 222.6	124 240	
20	Electronic and other electric equipment	210.2	228.6	261.9	296.8	313.8	344.2	111.6	114.0	129.0	160.1	172.2	186	
21	Motor vehicles and equipment	235.6	265.0	312.5	325.0	326.6	343.3	182.8	193.5	225.2	239.7	244.2	257	
22	Other transportation equipment	149.1 131.0	146.2 133.8	132.9 134.4	128.8 140.8	135.9 147.3	156.9 159.0	92.6 76.7	92.8 82.9	83.4 85.7	82.7 91.7	86.9 91.8	106 103	
22 23 24 25	Miscellaneous manufacturing industries	41.3	44.3	46.6	49.1	51.3	58.1	21.1	23.2	24.4	25.8	26.8	33	
25	Nondurable goods	1,450.9	1,483.0	1,543.0	1,650.5	1,691.5	1,753.9	960.6	982.2	1,006.1	1,079.9	1,119.6	1,159	
6	Food and kindred products	398.3 39.9	412.8 33.6	420.6 35.3	436.6 38.3	450.9 39.5	460.4 43.7	296.2 21.6	309.5 18.4	311.0 19.0	313.5 21.0	334.9 22.5	341 25	
8.	Textile mill products	70.5	74.0	77.7	79.4	79.7	83.6	45.1	48.6	52.3	54.9	55.0	58	
9	Apparel and other textile products	70.9	73.0	76.1	76.7	75.6	77.5	43.7	45.6	47.8	49.3	48.9	49	
11	Paper and allied products  Printing and publishing	131.9 170.0	132.2 176.0	141.9 180.7	172.8 192.0	159.3 199.6	160.5 209.0	86.1 90.3	84.5 96.0	90.6 94.7	113.8 107.3	102.7 107.3	105 110	
12	Chemicals and allied products	299.5	307.1	325.8	352.2	358.4	379.9	179.0	182.4	185.2	196.1	202.6	221	
3	Petroleum and coal products	148.1 112.2	143.3 121.2	142.1 133.5	149.6 143.9	171.2 148.1	175.6 154.3	119.8 74.1	112.0 79.9	111.7 89.2	121.3 98.9	141.6 99.6	140 102	
13 14 15	Leather and leather products	9.5	9.9	9.4	9.0	9.0	9.2	4.7	5.3	4.7	3.8	4.6	4	
6	Transportation and public utilities 1													
17 18	Transportation <sup>1</sup>	33.0	33.6	35.8	37.5	38.1	38.9	10.9	11.5	11.6	14.6	14.6	14	
9	Local and interurban passenger transit	15.9	16.7	17.4	18.4	19.7	20.8	5.0	5.6	6.0	6.2	6.7	7	
10	Trucking and warehousing	167.9	178.3	196.0	204.5	218.1	238.8	85.8	91.3	101.0	106.5	125.3	140	
1	Water transportation <sup>1</sup> Transportation by air	92.7	100.2	104.6	111.9	116.8	128.2	49.8	52.4	52.9	58.0	51.6	53	
12 13 14 15	Pipelines, except natural gas	8.4	8.2	8.6	9.0	8.6	8.4	3.5	3.4	4.0	4.1	3.3	2	
14	Transportation services 1										407.5			
16 16	Communications Telephone and telegraph	247.6 188.5	263.3 196.8	277.0 207.4	300.8 225.4	326.1 242.0	347.1 258.0	86.5 58.8	87.7 62.2	92.3 65.3	107.5 80.2	118.7 85.0	135 99	
17	Radio and television	59.1	66.5	69.5	75.4	84.1	89.1	27.7	25.5	27.0	27.3	33.7	36	
18	Electric, gas, and sanitary services	264.9	274.5	269.1	270.3	274.2	278.2	90.2	91.7	75.0	73.2	69.3	69	
19	Wholesale trade	585.8	625.2	680.1	744.6	768.4	801.5	179.4	201.9	212.1	253.2	248.6	238	
50	Retail trade	864.8	916.1	977.9	1,017.6	1,062.3	1,108.3	320.5	342.9	362.6	376.6	389.3	395	
51 52	Finance, insurance, and real estate <sup>1</sup> Depository institutions <sup>1</sup>													
53	Nondepository institutions 1													
54	Security and commodity brokers	96.1 164.5	118.0 191.2	128.0 202.6	144.9 215.5	182.3 221.6	219.7 239.7	46.6 81.1	54.1 84.7	49.5 93.8	71.5 97.0	85.8 99.6	113 93	
6	Insurance agents, brokers, and service		63.0	69.1	72.6	73.8	76.2	20.1	21.5	24.0	26.0	25.8	25	
7	Real estate T													
58 59	Nonfarm housing services Other real estate <sup>1</sup>	615.2	639.7	677.6	713.7	748.7	789.8	61.8	70.9	70.3	70.6	73.0	77	
30	Holding and other investment offices <sup>1</sup>													
31	Services 1			97.8	402.0	400.0				40.4			40	
	Hotels and other lodging places	85.5 73.5	90.6 77.2	81.6	103.0 87.2	108.8 91.0	112.2 95.5	34.6 32.5	36.8 33.0	40.4 35.8	41.7 39.8	43.2 43.2	43 43	
2	Personal services													
3 3 34	Personal services				118.2	126.9	134.4	42.8 22.4	46.4 21.8	50.2 25.1	54.6 28.7	58.6 28.9	61 29	
33 34 35	Business services <sup>1</sup>	93.9	100.6	109.5					21.0			37.6	42	
i2 i3 i4 i5 i6	Business services <sup>1</sup>	93.9 39.9	40.8	44.3	49.2	50.5 65.9	52.8 72.9		30.7					
52 53 54 55 66 57 58	Business services <sup>1</sup> Auto repair, services, and parking Miscellaneous repair services Motion pictures Amusement and recreation services	93.9 39.9 49.2 75.5	40.8 54.1 83.4	44.3 58.5 89.9	49.2 62.5 101.5	65.9 112.2	72.9 119.4	29.2 27.6	30.7 35.6	35.5 38.5	36.2 44.9	50.9		
i2 i3 i4 i5 i6 i7 i8 i9	Business services   Auto repair, services, and parking Miscellaneous repair services Motion pictures Amusement and recreation services Health services	93.9 39.9 49.2 75.5 580.8	40.8 54.1 83.4 614.3	44.3 58.5 89.9 645.8	49.2 62.5 101.5 682.7	65.9 112.2 713.4	72.9 119.4 749.6	29.2 27.6 211.8	35.6 227.7	38.5 235.6	44.9 253.8	50.9 267.9	289	
52 53 54 55 66 57 58 59 70	Business services   Auto repair, services, and parking Miscellaneous repair services Motion pictures Amusement and recreation services Health services Legal services	93.9 39.9 49.2 75.5 580.8 118.7	40.8 54.1 83.4 614.3 122.3	44.3 58.5 89.9 645.8 124.5	49.2 62.5 101.5 682.7 126.1	65.9 112.2 713.4 135.4	72.9 119.4 749.6 142.5	29.2 27.6 211.8 28.5	35.6 227.7 30.7	38.5 235.6 30.7	44.9 253.8 29.5	50.9 267.9 34.6	289 35	
52 53 54 55 56 57 58 59 70 71	Business services <sup>1</sup> Auto repair, services, and parking Miscellaneous repair services Motion pictures Amusement and recreation services Health services Legal services Educational services Social services Social services	93.9 39.9 49.2 75.5 580.8 118.7 84.7	40.8 54.1 83.4 614.3 122.3 89.3	44.3 58.5 89.9 645.8 124.5 95.1	49.2 62.5 101.5 682.7 126.1 101.3	65.9 112.2 713.4 135.4 107.7	72.9 119.4 749.6 142.5 115.8	29.2 27.6 211.8 28.5 38.5	35.6 227.7 30.7 40.5	38.5 235.6 30.7 42.8	44.9 253.8 29.5 46.0	50.9 267.9 34.6 49.6	289 35 54	
52 53 54 55 56 57 58 70 71	Business services <sup>1</sup> Auto repair, services, and parking Miscellaneous repair services Moltion pictures Amusement and recreation services Health services Legal services Educational services Social services <sup>1</sup> Membership organizations <sup>1</sup>	93.9 39.9 49.2 75.5 580.8 118.7 84.7	40.8 54.1 83.4 614.3 122.3 89.3	44.3 58.5 89.9 645.8 124.5 95.1	49.2 62.5 101.5 682.7 126.1 101.3	65.9 112.2 713.4 135.4 107.7	72.9 119.4 749.6 142.5 115.8	29.2 27.6 211.8 28.5 38.5	35.6 227.7 30.7 40.5	38.5 235.6 30.7 42.8	44.9 253.8 29.5 46.0	50.9 267.9 34.6 49.6	289 35 54	
62 63 64 65 66 67 68 69 70 71	Business services <sup>1</sup> Auto repair, services, and parking Miscellaneous repair services Motion pictures Amusement and recreation services Health services Legal services Educational services Social services Social services	93.9 39.9 49.2 75.5 580.8 118.7 84.7	40.8 54.1 83.4 614.3 122.3 89.3	44.3 58.5 89.9 645.8 124.5 95.1	49.2 62.5 101.5 682.7 126.1 101.3	65.9 112.2 713.4 135.4 107.7	72.9 119.4 749.6 142.5 115.8	29.2 27.6 211.8 28.5 38.5	35.6 227.7 30.7 40.5	38.5 235.6 30.7 42.8	44.9 253.8 29.5 46.0	50.9 267.9 34.6 49.6	289 35 54	
62 63 64 65 66 67 68 69 70 71 72 73	Business services <sup>1</sup> Auto repair, services, and parking Miscellaneous repair services Motion pictures Amusement and recreation services Health services Legal services Educational services Social services Membership organizations <sup>1</sup> Other services	93.9 39.9 49.2 75.5 580.8 118.7 84.7	40.8 54.1 83.4 614.3 122.3 89.3	44.3 58.5 89.9 645.8 124.5 95.1	49.2 62.5 101.5 682.7 126.1 101.3	65.9 112.2 713.4 135.4 107.7	72.9 119.4 749.6 142.5 115.8	29.2 27.6 211.8 28.5 38.5	35.6 227.7 30.7 40.5	38.5 235.6 30.7 42.8	44.9 253.8 29.5 46.0	50.9 267.9 34.6 49.6	289 35 54	
52 53 54 55 56 66 77 71 72 73 74 75	Business services ¹ Auto repair, services, and parking Miscellaneous repair services Motion pictures Amusement and recreation services Health services Legal services Educational services Social services¹ Membership organizations¹ Other services¹ Private households¹  Government¹  Federal¹	93.9 39.9 49.2 75.5 580.8 118.7 84.7	40.8 54.1 83.4 614.3 122.3 89.3	44.3 58.5 89.9 645.8 124.5 95.1	49.2 62.5 101.5 682.7 126.1 101.3	65.9 112.2 713.4 135.4 107.7	72.9 119.4 749.6 142.5 115.8	29.2 27.6 211.8 28.5 38.5	35.6 227.7 30.7 40.5	38.5 235.6 30.7 42.8	44.9 253.8 29.5 46.0	50.9 267.9 34.6 49.6	289 35 54	
62 63 64 65 66 67 68 69 70 71 72 73 74 75 76	Business services <sup>1</sup> Auto repair, services, and parking Miscellaneous repair services Motion pictures Amusement and recreation services Health services Legal services Educational services Social services <sup>1</sup> Membership organizations <sup>1</sup> Other services <sup>1</sup> Private households <sup>1</sup> Government <sup>1</sup>	93.9 39.9 49.2 75.5 580.8 118.7 84.7	40.8 54.1 83.4 614.3 122.3 89.3	44.3 58.5 89.9 645.8 124.5 95.1	49.2 62.5 101.5 682.7 126.1 101.3	65.9 112.2 713.4 135.4 107.7	72.9 119.4 749.6 142.5 115.8	29.2 27.6 211.8 28.5 38.5	35.6 227.7 30.7 40.5	38.5 235.6 30.7 42.8	44.9 253.8 29.5 46.0	50.9 267.9 34.6 49.6	289 35 54	
62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79	Business services   Auto repair, services, and parking Miscellaneous repair services Motion pictures Amusement and recreation services Health services Legal services Educational services Social services   Membership organizations   Other services   Private households    Government   Federal   General overnment	93.9 39.9 49.2 75.5 580.8 118.7 84.7	40.8 54.1 83.4 614.3 122.3 89.3	44.3 58.5 89.9 645.8 124.5 95.1	49.2 62.5 101.5 682.7 126.1 101.3	65.9 112.2 713.4 135.4 107.7	72.9 119.4 749.6 142.5 115.8	29.2 27.6 211.8 28.5 38.5	35.6 227.7 30.7 40.5	38.5 235.6 30.7 42.8	44.9 253.8 29.5 46.0	50.9 267.9 34.6 49.6	52 289 35 54	

<sup>1.</sup> Estimates for gross output and for intermediate inputs are not shown for this item, because data are not available. See footnote 11 in the text.

Table 15.—Chain-Type Quantity and Price Indexes for Gross Output by Industry, 1992-97

Quantity indexes (1992=100) Price indexes (1992=										s (1992=10	2=100)			
Line		1992	1993	1994	1995	1996	1997	1992	1993	1994	1995	1996	1997	
1	Gross domestic product <sup>1</sup>													
2	Private industries <sup>1</sup>													
3	Agriculture, forestry, and fishing	100.00	97.61	105.70	102.56	106.71	113.69	100.00	102.64	102.04	104.07	112.69	108.62	
4 5	Farms	100.00 100.00	97.16 99.67	106.26 103.73	101.61 108.05	104.25 119.91	111.00 128.11	100.00 100.00	102.28 104.66	101.72 102.87	103.14 107.90	113.53 108.38	108.15 110.10	
6	Mining	100.00	100.72	103.03	102.16	103.79	106.82	100.00	99.46	95.55	95.80	111.52	111.31	
7 8	Coal mining	100.00 100.00	98.83 94.92	101.60 103.91	99.87 103.22	100.60 106.38	102.70 109.03	100.00 100.00	94.55 94.73	104.02 92.57	116.00 89.79	108.54 88.52	101.48 87.49	
9 10	Oil and gas extraction	100.00 100.00	102.35 101.57	102.18 108.81	100.80 111.78	102.08 114.27	105.14 118.31	100.00 100.00	101.27 99.11	94.62 101.52	94.15 103.86	119.31 105.13	119.62 107.86	
11	Construction	100.00	102.51	106.75	107.41	112.57	116.70	100.00	103.25	106.89	111.21	113.94	117.53	
12 13	Manufacturing	100.00	103.52	109.40	114.87	118.83	126.91	100.00	101.02	102.28	104.60	104.42	103.54	
13 14	Durable goods Lumber and wood products	100.00 100.00	105.66 99.74	114.44 104.91	123.19 107.24	131.16 109.12	143.72 110.36	100.00 100.00	101.12 115.88	102.42 120.53	102.52 120.05	100.11 119.14	98.47 123.27	
14 15	Furniture and fixtures	100.00	104.89	109.10	112.87	115.02	124.42	100.00	102.00	105.52	108.53	111.11	112.71	
16 17	Stone, clay, and glass products Primary metal industries	100.00 100.00	102.43 104.88	107.39 111.38	110.72 112.91	118.04 116.38	127.24 121.64	100.00 100.00	102.21 98.61	105.95 104.79	110.27 115.74	111.93 111.16	113.42 111.99	
18 19	Fabricated metal products	100.00 100.00	103.97 110.56	111.73 125.68	115.50 146.47	119.51 164.81	124.96 187.82	100.00 100.00	100.72 98.01	102.45 96.85	106.32 94.46	107.55 89.71	108.79 84.67	
20	Industrial machinery and equipment Electronic and other electric equipment	100.00	110.56	130.22	161.76	188.72	220.89	100.00	98.36	95.69	87.30	79.11	74.13	
21	Motor vehicles and equipment Other transportation equipment	100.00 100.00	109.72 96.40	126.28 86.12	129.90 81.61	129.67 84.58	137.37 96.54	100.00 100.00	102.51 101.73	105.04 103.47	106.18 105.85	106.91 107.75	106.06 109.01	
23	Instruments and related products	100.00	100.72	100.17	104.01	108.14	116.20	100.00	101.41	102.46	103.35	104.00	104.52	
24 25	Miscellaneous manufacturing industries Nondurable goods	100.00 100.00	105.35 101.30	108.90 104.14	112.49 106.25	115.81 106.28	129.80 110.07	100.00 100.00	101.90 100.91	103.64 102.13	105.83 107.07	107.40 109.70	108.40 109.82	
22 23 24 25 26 27	Food and kindred products	100.00	101.86	102.60	105.55	103.77	105.62	100.00	101.74	102.90	103.85	109.07	109.43	
27	Tobacco products Textile mill products	100.00 100.00	86.23 105.19	100.74 110.08	106.22 109.11	107.74 108.26	113.84 113.13	100.00 100.00	97.61 99.83	87.72 100.08	90.34 103.22	91.81 104.45	96.15 104.84	
28 29 30	Apparel and other textile products	100.00	102.00	105.91	106.07	102.97	104.75	100.00	100.91	101.30	101.96	103.57	104.37	
31	Paper and allied products Printing and publishing	100.00 100.00	101.61 100.28	105.67 100.33	106.49 100.96	104.69 101.32	109.67 104.14	100.00 100.00	98.60 103.22	101.82 105.91	122.99 111.83	115.34 115.88	110.98 118.03	
32 33	Printing and publishing Chemicals and allied products Petrology and coal products	100.00 100.00	100.27 100.24	103.01 102.59	106.28 104.52	107.80 106.20	113.16 111.07	100.00 100.00	102.26 96.56	105.61 93.56	110.65 96.69	111.03 108.89	112.11 106.80	
34	Petroleum and coal products	100.00	106.92	116.24	119.20	123.14	128.57	100.00	100.98	102.36	107.53	107.19	106.93	
35	Leather and leather products	100.00	102.22	94.96	87.52	88.72	88.75	100.00	101.93	104.71	108.56	107.22	109.30	
36 37	Transportation and public utilities <sup>1</sup>													
38 39	Railroad transportation Local and interurban passenger transit	100.00 100.00	103.74 104.20	111.85 107.11	120.97 109.43	124.77 109.99	124.80 111.17	100.00 100.00	98.15 101.30	97.03 102.76	93.96 105.89	92.46 113.14	94.38 117.98	
40	Trucking and warehousing		105.64	111.41	113.01	119.27	129.33	100.00	100.52	104.78	107.76	108.93	109.98	
41 42	I ransportation by air	100.00	103.84	112.06	114.98	118.10	129.99	100.00	104.09	100.67	104.96	106.63	106.37	
43 44	Pipelines, except natural gas Transportation services <sup>1</sup> Communications	100.00	100.97	103.12	104.15	108.71	107.66	100.00	96.59	99.14	103.06	93.65	93.38	
45	Communications	100.00	105.00	109.75	116.61	127.87	138.80	100.00	101.26	101.92	104.18	103.00	100.99	
46 47	Telephone and telegraphRadio and television	100.00 100.00	104.37 106.96	109.92 109.27	117.54 113.83	131.26 118.04	147.02 116.23	100.00 100.00	100.06 105.05	100.13 107.60	101.74 112.04	97.83 120.47	93.11 129.56	
48	Electric, gas, and sanitary services	100.00	100.95	99.68	100.76	100.80	100.57	100.00	102.65	101.92	101.25	102.68	104.42	
49	Wholesale trade	100.00	104.81	111.07	117.57	121.20	126.54	100.00	101.82	104.53	108.11	108.22	108.12	
50	Retail trade	100.00	104.31	109.59	112.84	117.67	122.58	100.00	101.55	103.19	104.28	104.39	104.55	
51 52	Finance, insurance, and real estate <sup>1</sup> Depository institutions <sup>1</sup>													
53	Nondepository institutions  Security and commodity brokers													
54 55	Security and commodity brokers	100.00 100.00	123.79 105.48	136.26 108.98	154.34 109.23	194.83 106.65	239.65 106.90	100.00 100.00	99.16 110.22	97.75 112.99	97.68 119.94	97.35 126.34	95.38 136.33	
55 56	Insurance agents, brokers, and service	100.00	101.77	108.11	110.64	108.84	109.94	100.00	103.87	107.20	110.18	113.73	116.38	
57 58	Real estate <sup>I</sup>	100.00	101.23	104.28	106.54	108.47	111.21	100.00	102.71	105.62	108.89	112.19	115.42	
59 60	Other real estate 1													
61	Services <sup>1</sup>													
62	Hotels and other lodging places	100.00	102.63	108.49	110.76	112.84	110.96	100.00	103.23	105.40	108.73	112.71	118.21	
63 64	Personal services	100.00	101.86	104.36	109.02	110.81	112.75	100.00	103.23	106.45	108.91	111.79	115.24	
65	Auto repair, services, and parking	100.00	102.88	108.10	114.67	121.05	126.95	100.00	104.12	107.82	109.69	111.61	112.66	
66 67	Miscellaneous repair services	100.00 100.00	96.99 108.35	103.37 112.49	113.11 116.69	111.51 117.89	113.72 127.15	100.00 100.00	105.40 101.50	107.24 105.76	109.02 108.99	113.41 113.74	116.25 116.58	
68	Amusement and recreation services	100.00	107.06	111.48	121.82	130.29	135.25	100.00	103.12	106.77	110.30	113.95	116.82	
69 70	Health services	100.00 100.00	101.18 98.78	102.36 97.33	104.75 95.49	107.09 99.03	109.86 100.17	100.00 100.00	104.53 104.31	108.63 107.82	112.20 111.27	114.70 115.17	117.47 119.83	
71	Educational services	100.00	102.85	106.30	108.37	111.81	116.64	100.00	102.56	105.66	110.35	113.74	117.24	
72 73	Social services <sup>1</sup>													
74 75	Other services <sup>1</sup> Private households <sup>1</sup>													
76	Government <sup>1</sup>													
	Federal <sup>1</sup>													
77 78	General government 1													
79	Government enterprises <sup>1</sup>													
80 81	State and local <sup>1</sup> General government <sup>1</sup>													
82	Government enterprises <sup>1</sup>													
	Estimates of gross output are not shown for this item, because data												L	

<sup>1.</sup> Estimates of gross output are not shown for this item, because data are not available. See footnote 11 in the text.

Table 16.—Chain-Type Quantity and Price Indexes for Intermediate Inputs by Industry, 1992-97

	rable 10.—Ghain-Type Quantity	Quantity indexes (1992=100) Price indexes (1992									s (1992=10	92=100)			
Line		1992	1993	1994	1995	1996	1997	1992	1993	1994	1995	1996	1997		
1	Gross domestic product 1														
2	Private industries <sup>1</sup>														
3	Agriculture, forestry, and fishing	100.00	103.99	105.27	110.31	111.39	113.64	100.00	101.88	104.12	105.21	111.74	114.18		
4 5	Farms Agricultural services, forestry, and fishing	100.00 100.00	103.98 104.25	107.06 66.69	110.51 103.20	109.03 157.59	110.24 181.53	100.00 100.00	101.81 103.59	103.99 107.58	105.04 111.84	111.66 116.96	114.32 116.42		
6	Mining	100.00	95.73	92.37	83.82	93.75	90.90	100.00	101.31	100.09	101.84	112.45	113.21		
7 8	Metal mining	100.00 100.00	96.03 88.96	99.91 95.55	100.00 94.96	98.02 91.16	93.50 91.37	100.00 100.00	99.81 99.58	103.79 100.21	109.07 101.19	108.63 102.20	109.24 102.45		
9 10	Oil and gas extraction	100.00 100.00	97.33 101.87	88.32 103.99	73.16 109.46	92.36 100.66	88.45 100.05	100.00 100.00	102.10 101.65	98.78 104.11	100.00 107.09	118.18 109.86	119.04 111.52		
11	Construction	100.00	103.06	104.45	103.63	107.56	113.54	100.00	103.02	106.10	109.53	111.30	114.80		
12 13	Manufacturing	100.00	103.53	107.84	112.27	117.22	125.79	100.00	100.79	102.48	106.83	106.35	105.25		
13 14	Durable goods Lumber and wood products	100.00 100.00	105.38 106.40	112.84 112.36	121.01 112.21	129.34 116.03	142.12 114.67	100.00 100.00	101.07 112.85	103.20 116.01	105.48 115.32	102.80 116.22	101.63 119.96		
14 15	Furniture and fixtures	100.00	101.78	107.81	111.53	114.95	126.17	100.00	103.87	107.21	111.47	111.95	112.96		
16 17	Stone, clay, and glass products Primary metal industries	100.00 100.00	105.76 102.62	107.24 109.80	112.18 112.85	123.50 114.82	134.33 121.07	100.00 100.00	101.88 99.12	105.48 105.62	109.81 115.10	111.10 111.72	112.61 112.45		
18 19	Fabricated metal products	100.00 100.00	103.40 114.05	105.29 129.16	108.44 144.48	114.38 162.64	119.30 181.62	100.00 100.00	100.96 99.17	104.67 99.64	111.73 100.07	109.58 96.00	110.39 92.92		
20	Industrial machinery and equipment  Electronic and other electric equipment	100.00	102.33	115.11	144.56	165.46	186.39	100.00	99.17	100.41	99.27	93.30	89.86		
21	Motor vehicles and equipment Other transportation equipment	100.00 100.00	104.80 98.79	119.88 87.31	124.83 84.68	127.07 88.84	134.51 108.39	100.00 100.00	101.00 101.41	102.76 103.20	105.09 105.50	105.17 105.65	104.92 105.87		
23	Instruments and related products	100.00	108.65	112.63	124.00	134.58	159.38	100.00	99.44	99.18	96.40	88.92	84.36		
24 25	Miscellaneous manufacturing industries	100.00 100.00	108.73 101.72	110.90 102.94	111.84 103.72	116.25 105.51	144.05 110.22	100.00 100.00	101.05 100.51	104.18 101.75	109.25 108.39	109.06 110.47	109.20 109.46		
22 23 24 25 26 27	Food and kindred products	100.00	101.94	102.05	99.78	103.86	106.00	100.00	102.52	102.89	106.07	108.86	108.91		
27	Tobacco products Textile mill products	100.00 100.00	84.87 106.90	86.24 111.53	90.08 111.87	96.66 112.27	110.45 119.27	100.00 100.00	100.73 100.75	102.26 103.96	108.25 108.80	107.88 108.67	106.19 108.06		
28 29	Apparel and other textile products	100.00	103.15	106.95	106.71	105.18	105.42	100.00	101.01	102.29	105.69	106.28	106.57		
30 31	Paper and allied products Printing and publishing	100.00 100.00	97.58 105.63	101.51 102.50	111.81 104.67	106.37 106.49	111.08 111.41	100.00 100.00	100.59 100.65	103.67 102.29	118.28 113.53	112.18 111.56	110.38 109.97		
32 33	Printing and publishing Chemicals and allied products	100.00 100.00	100.37 100.64	98.92 103.87	99.62 103.78	101.79 104.49	110.22 110.32	100.00 100.00	101.53 92.84	104.56 89.77	109.97 97.53	111.21 113.08	112.06 106.23		
34	Petroleum and coal products	100.00	106.20	114.77	117.12	119.93	122.88	100.00	101.45	104.78	113.94	112.01	112.35		
35	Leather and leather products	100.00	110.96	96.39	75.10	90.56	86.12	100.00	102.11	103.78	107.84	107.88	109.53		
36 37	Transportation and public utilities 1														
38 39	Railroad transportation Local and interurban passenger transit	100.00 100.00	102.55 111.96	101.63 119.65	125.16 119.20	120.00 123.47	119.93 126.89	100.00 100.00	102.58 99.96	104.40 101.50	106.47 104.73	111.55 109.28	112.27 110.34		
40	Trucking and warehousing Water transportation <sup>1</sup>		106.38	114.72	117.51	132.88	151.66	100.00	100.10	102.71	105.70	109.94	108.34		
41 42	I ransportation by air	100.00	104.70	105.29	112.49	93.21	97.50	100.00	100.61	100.96	103.67	111.15	110.89		
43 44	Pipelines, except natural gas Transportation services <sup>1</sup> Communications	100.00	93.01	108.58	108.55	85.30	72.12	100.00	102.50	104.26	107.33	110.46	113.09		
45	Communications	100.00	101.90	109.69	124.98	144.89	170.57	100.00	99.50	97.32	99.43	94.69	91.81		
46 47	Telephone and telegraphRadio and television	100.00 100.00	107.36 90.34	117.72 92.71	140.91 91.53	161.42 110.04	197.12 115.38	100.00 100.00	98.54 101.92	94.32 105.34	96.78 107.69	89.52 110.56	85.80 112.70		
48	Electric, gas, and sanitary services	100.00	98.07	79.40	79.85	69.81	68.20	100.00	103.71	104.72	101.68	110.12	112.23		
49	Wholesale trade	100.00	110.09	112.66	129.81	124.73	117.57	100.00	102.25	104.94	108.74	111.09	113.18		
50	Retail trade	100.00	104.81	108.16	109.16	110.11	109.15	100.00	102.08	104.60	107.62	110.31	113.03		
51 52	Finance, insurance, and real estate 1														
53	Depository institutions <sup>1</sup> Nondepository institutions <sup>1</sup> Security and commodity brokers														
54 55	Security and commodity brokers	100.00 100.00	115.21 100.73	104.49 108.55	149.12 109.26	178.32 108.79	233.62 99.94	100.00 100.00	100.76 103.58	101.59 106.45	102.83 109.45	103.22 112.84	103.90 115.64		
55 56	Insurance agents, brokers, and service	100.00	104.08	113.38	118.73	114.92	111.11	100.00	102.67	105.28	108.61	111.39	114.24		
57 58	Real estate <sup>I</sup>	100.00	111.22	109.10	108.15	108.99	110.47	100.00	103.26	104.29	105.65	108.35	112.94		
59 60	Other real estate 1														
	Holding and other investment offices <sup>1</sup>														
61 62	Hotels and other lodging places	100.00	104.14	111.23	111.56	112.80	110.25	100.00	102.27	105.11	108.21	110.89	113.32		
63 64	Personal services	100.00	99.12	104.99	113.46	120.25	119.24	100.00	102.30	104.87	107.90	110.46	113.28		
65	Auto repair, services, and parking	100.00	106.34	112.73	119.74	125.06	128.18	100.00	101.76	103.95	106.44	109.47	111.25		
66 67	Miscellaneous repair services	100.00 100.00	96.56 103.09	110.23 114.64	128.06 112.99	134.48 112.41	142.44 123.21	100.00 100.00	100.66 101.93	101.36 106.04	100.09 109.69	95.66 114.39	92.74 117.89		
68	Amusement and recreation services	100.00	126.06	132.91	150.48	165.68	166.53	100.00	102.11	104.77	108.00	111.06	114.34		
69 70	Health services	100.00 100.00	105.10 105.34	106.22 103.35	111.25 96.56	115.90 110.98	123.04 112.39	100.00 100.00	102.30 102.16	104.73 104.17	107.73 107.15	109.15 109.36	111.09 111.84		
71	Educational services	100.00	102.98	106.87	111.30	118.18	126.51	100.00	102.18	104.26	107.57	109.22	111.63		
72 73	Social services <sup>1</sup>														
74 75	Other services <sup>1</sup> Private households <sup>1</sup>														
76	Government <sup>1</sup>														
77 78	Federal <sup>1</sup>														
79	Government enterprises <sup>1</sup>														
80 81	State and local <sup>1</sup> General government <sup>1</sup>														
82	Government enterprises <sup>1</sup>														
	Estimates for intermediate inputs are not shown for this item, because														

<sup>1.</sup> Estimates for intermediate inputs are not shown for this item, because data are not available. See footnote 11 in the text.